Page 400 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

		ONA clone IMAGE:453245 3'	126440 5	126440 6'	:1860468 3'			967690 5'	263041), mRNA	25F1) mRNA	A clone IMAGE:14035593'	A clone IMAGE:1403559 3'	A	¥	otein 1 (TAX1BP1), mRNA			mRNA	RNA	458830 5'	531953 5	458830 5	2871719 3'		911303 5'	911303 5'	251371 3'		636753 5'			DNA clone IMAGE:283478 5'			
Typicosod III Dolle ivigitow	Top Hit Descriptor	2/45/03.s1 Soares_fetal_liver_spleen_INFLS_S1 Homo saplens cDNA clone IMAGE:453245 3	601897003F1 NIH MGC 19 Hamo sapiens cDNA clone IMAGE:4126440 5	601897003F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126440 6'	qi56a07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1860468 3	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA	Homo saplens calcineurin binding protein 1 (KIAA0330), mRNA	601120778F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2967690 5	Homo sapiens similar to CDC28 protein kinase 1 (H. sapiens) (LOC63041), mRNA	Homo sapiens cytochrome P450, subfamily IIF, polypeptide 1 (CYP2F1) mRNA	aj88f08.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1403559 3	aj88f08.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1403559.3'	Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA	Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA	Homo sapiens Tax1 (human T-cell leukemia virus type I) binding protein 1 (TAX1BP1). mRNA	Homo sapiens galactocerebrosidase (GALC) gene, exon 15	Homo saplens RAN binding protein 7 (RANBP7), mRNA	Homo sapiens DiGeorge syndrome critical region gene 6 (DGCR6), mRNA	Homo sapiens exeglutarate dehydrogenase (lipoamide) (OGDH) mRNA	601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458830 5	601176865F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531953 5	601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458830 5'	x292h12.x1 NCI_CGAP_Lu24 Homo sepiens cDNA clone IMAGE:2871719 3	AV722329 HTB Homo sapiens cDNA clone HTBBSD04 5'	601509696F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911303 5	601509696F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE;3911303 5	tu18b02.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2251371 3'	AV690469 GKC Homo saplens cDNA clone GKCBSE02 5'	601302333F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636753 5'	EST177232 Jurkat T-cells VI Homo sapiens cDNA 5' end	Homo saplens chromosome 21 segment HS21 C003	yz19a08.r1 Soares_multiple_sclerosis_2NbHMSP Homo saplens cDNA clone IMAGE:283478 5	Human endogenous retrovirus, complete genome	Homo saplens mRNA for KIAA1277 protein, partial cds	EST378215 MAGE resequences, MAGI Homo sapiens cDNA
2000111100-	Top Hit Database Source	EST_HUMAN	EST HUMAN	Г	Г			EST_HUMAN			EST_HUMAN	T_HUMAN				LZ LZ				EST HUMAN		EST_HUMAN	EST_HUMAN >		П	EST_HUMAN (		HUMAN	EST_HUMAN 6	T_HUMAN	NT IN	EST_HUMAN )		- IN	EST_HUMAN E
28.10	Top Hit Acession No.	1.0E-85 AA778785.1	1.0E-85 BF311552.1	1.0E-85 BF311552.1	1.0E-85 AI198420.1	11417862 NT	11417862 NT	9.0E-86 BE274217.1	11424140 NT	4503224 NT	7.0E-86 AA860801.1	7.0E-86 AA860801.1	D889966	9966886 NT	11421737 NT	L38557.1	5453997 NT	11526307 NT	4505492 NT			6 BE547173.1	S AW340946.1	6 AV722329.1	3.0E-86 BE886479.1	8 BE886479.1	5 AI659240.1		3.0E-86 BE410354.1	AA306264.1	.2	2.0E-86 N58977.1	5487	AB033103.1	3 AW966142.1
	Most Similar (Top) Hit BLAST E Value	1.0E-85	1.0E-85	1.0E-85	1.0E-85	1.0E-85	1.0E-85	9.0E-86	8.0E-86	8.0E-86	7.0E-86	7.0E-86	7.0E-86	7.0E-86	7.0E-86	7.0E-86 L38557	7.0E-86	7.0E-86	6.0E-86	4.0E-86	4.0E-86	4.0E-86	3.0E-86	3.0E-86	3.0E-86	3.0E-86	3.0E-86	3.0E-86	3.0E-86	2.0E-86	2.0E-86	2.0E-86	2.0E-86	2.0E-86	2.0E-86/
	Expression Signal	2.01	2.46	2.46	2.37	3.47	3.37	12.78	1.27	1.57	0.83	0.83	0.85	0.85	6.12	4.12	1.49	1.67	3.29	1.75	10.99	2.44	6.64	1.12	3.28	3.26	5.6	1.55	1.35	1.63	2.72	2.88	2.54	1.14	1.47
	ORF SEQ ID NO:	37746	37816	37817	38533	31780	31780		32552	38477	26939	26940	32631			35487		36522	27293	26241	32455	26241	31944	34988	36995	36698	37437	38312		26286		27189	28236	28315	29393
	Exan SEQ ID NO:				24937	25289													. 1	- 1			- 1	21573	23503	23503	23919			13362	13487	14234	-	- 1	16474
	Probe SEQ ID NO:	11269	11342	11342	12064	12328	12583	1426	6249	12004	936	936	6320	6320	7169	9606	10058	10116	1297	212	9151	11572	5677	8605	10581	10581	11764	11842	12295	<b>5</b> 98	414	1194	2201	2277	3426

Page 401 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		_	_	_		_	_		_	~			_			_	_		_		_				_	_	_	_		_	
	Top Hit Descriptor	Homo sapiens lysophosphatidic acid acytransferase-delta (LPAAT-delta) mRNA, complete cds	Homo sapiens lysophosphatidic acid acytransferase-delta (LPAAT-delta) mRNA, complete cds	hd87g08.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2916542 3'	Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds	H.sapiens mRNA encoding phospholipase c	H.sapiens mRNA encoding phospholipase c	Homo sapiens similar to ectonuclectide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mBNA	Himan Chediak-Hidashi sundrame protein short isoform (LYST) mRNA complete cds	Homo sabiens chromosome 21 segment HS210027	Homo sapiens butyrobetaine (gamma), 2-oxogiutarate dioxygenase (gamma-butyrobetaine hydroxylase) (BBOX), mRNA	Homo sapiens butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) (BBOX), mRNA	Homo saplens phospholipid scramblase 1 (PLSCR1), mRNA	Homo sapiens chromosome segregation 1 (yeast homolog)-like (CSE1L), mRNA	Homo sapiens basio-helix-loop-helix-PAS protein (NPAS3), mRNA	Homo saplens basic-helix-loop-helix-PAS protein (NPAS3), mRNA	Homo sapiens mRNA for KIAA1411 protein, partial cds	Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA	Homo sapiens gene for AF-6, complete cds	Homo saplens NADH dehydrogenase (ubiquinone) Fe-S protein 1 (75kD) (NADH-coenzyme Q reductase)	(NDUFS1) mRNA	Homo sapiens fibulin 5 (FBLN5) mRNA	Human gamma-glutamyi transpeptidase mRNA, complete cds	Homo saplens chromosome 21 segment HS21 C009	Homo saplens chromosome 21 segment HS21C009	Homo sapiens hypothetical protein (LOC51318), mRNA	Homo saplens hypothetical protein (LOC51318), mRNA	Homo sapiens chromosome 21 segment HS21C100	Homo saplens synaptojanin 1 (SYNJ1), mRNA	Homo saplens chromosome 21 segment HS21C084	qb77c08.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1708128 3' similar to SW:K1CJ_MOUSE P02536 KERATIN, TYPE I CYTOSKELETAL 10 ;
Top Hit	Database Source	뒫	NT	EST_HUMAN	LΝ	L	TN	FN	F	LV.	L <sub>Z</sub>		F	NT	LN	N.	LN TN	LZ	FZ		Ľ	۲×	IN	LN	LΝ	FZ	FZ	FN	LN	Z	EST_HUMAN
Top Hit Acesslon	No.	2.0E-86 AF156776.1		4W515742.1				T-140420	184744 4	2 0F-86 At 163227 2	135	11437135 NT	2.0E-86 10863876 NT	11422084 NT	11545846 NT	11545846 NT	4B037832.1	2.0E-86 11418189 NT	4B011399.1		4826855 NT	5453649 NT		.2	1.0E-86 AL163209.2	7706161 NT	7706161 NT	1.0E-86 AL163300.2	4507334 NT	1.0E-86 AL163284.2	9.0E-87 A1150703.1
	BLAST E Value	2.0E-86	2.0E-86,	2.0E-86	2.0E-86	2.0E-86	2.0E-86	86 110 0	2010.2 Balance	205-86	2.0E-86	2.05-86	2.0E-86	2.0E-86	2.0E-86	2.0E-86	2.05-86	2.0E-86	2.0E-86 /		1.0E-86				1.0E-86	1.0E-86	1.0E-86	1.0E-86	1.05-88	1.0E-86	9.0E-87
Fxoression	Signal	2.55	2.55	3.01	3.3	1.63	1.53	6	72.0	0.53	2.44	2.44	1.48	2.12	2.88	2.88	1.63	2.92	6.37		1.28	1.52	2.61	2.18	2.18	1.01	1.01	5.56	1.12	1.44	1.78
ORFSED	Ö NÖ:		29712				32258		24778		35312	<u> </u>		36080	İ		37289									L				İ	
	SEQ ID NO:	16800	ĺ			(	19057	<u> </u>	21007	_ 1		21886	22220	22626	23735		L		25485		1		ĺ	Ĺ	ſ	1	l	17322	ட	1_	
Probe	SEG ID SO:	3759	3759	4070	4828	5972	5972	7.07	272	888	8920	8920	9254	9673	10814	10814	10869	12732	12901		1601	3176	3249	3307	3307	3966	3966	4293	4651	5632	5430

Page 402 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Oligie Exoli Plotes Expressed ii boile Mariow	ORF SEQ Expression (Top) Hit Acession ID No. Signal BLASTE No. Source	34001 1.73 9.0E-87 4757721 NT	34002 1.73 9.0E-87 4757721 NT	26480 82.98	28336 3.11 7.0E-87 BF063211.1 [EST_HUMAN	28337 3.11 7.0E-87[BF063211.1 [EST_HUMAN ]	32864 1.01 7.0E-87[AW890336.1 [EST_HUMAN ]	34915 2.59 7.0E-87 BF352776.1 EST_HUMAN	34535 0.66 7.0E-87 BE712961.1 [EST_HUMAN	36837 3.41 7.0E-87 AL043314.2  EST_HUMAN	36838 3.41 7.0E-87 AL043314.2  EST_HUMAN	0.48 7.0E-87 A1081565.1	37708 10.09 7.0E-87 K03002.1	97709 10.09	29507 0.76 6.0E-87 7657213 NT	32886 1.84 6.0E-87 AB029004.1 NT Homo sapiens mRNA for KIAA1081 protein, partial cds	6.13 6.0E-87 11432444 NT	27157 1.86	27157 2 5.0E-	26972 0.98 4.0E-87 AL163210.2 NT	27172 15.32 4.0E-87[AB037835.1 NT	28084 1.49	Homo saplens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 29448 1.57 4.0E-87 5174574 NT (MLLT4) mRNA	31167 0.98 4.0E-	31168 0.98 4.0E-87 4759073 NT	31554 5.85 4.0E-87 000321		32469 4.54 4.0E-87 BE247284.1 [EST_HUMAN	34264 0.5 4.0E-87 11425291 NT	34265 0.5 4.0E-87 11425291 NT	34383 0.61 4.0E-87 L48524.1 NT	35996 0.47
		34001	34002	26480	28336	28337	32864	34915	34535	36837	36838		37708	37709	29507	32886		27157	27157	26972	27172	28084	29448	31167	31168	31554	32118	32469	34264	34265	34383	35996
	Exon SEQ ID NO:	7681 20639	7681 20639	480 13552	2304 15316	2304 15316	540 19602	8531 21499	Ш		10431 23353		11237 24190	11237 24190	538 16584	6561 19621	11079 24041	1162 14204	L	967 14019	1176 14217	2045 15064	3478 16524	1	307 18310	ı	5844 18934	 1		7933 20875	1050 20987	l
	Probe SEQ ID NO:	7	7		2	2	Ö	80	Ō	þ	10	5	٦	1	ا ش	ø	Į	-	12		٦	2	, ,	18	ြိ	ľ	8	9	7	,	B	S

Page 403 of 546 Table 4 Single Exon Probes Expressed In Bone Marrow

$-\omega$	Single Extra Flores Expressed III Dolle Wallow	Most Signal BLASTE No. Signal Action (Top Hit Acession Value Surree	37894 5.12	31428 1.47	31429 1.47	3.11 4.0E	28796 4.73 2.0	0.79 2.0E-87 BF327920.1 [EST_HUMAN [	29746 0.9 2.0E-87]AU116935.1  EST_HUMAN	30866 1.64 2.0E-87 BF376311.1  EST_HUMAN	30900 0.68 2.0E-87 BE175478.1 EST_HUMAN	32020 8.67 2.0E-87 BE734190.1 EST_HUMAN	32021 8.67 2.0E-87 BE734190.1  EST_HUMAN	3.73	33205 1.12 2.0E-87[N48128.1 EST_HUMAN	33496 0.64 2.0E-87 AV654143.1 EST_HUMAN	33700 1.31	33757 0.81 2.0E-87 11433046 NT	34008 37.21 2.0E-87 N48128.1	34284 36.03 2.0E-87 N48128.1	35130 13.21 2.0E-87 X52851.1 NT	5.58 2.0E-87 BE531136	3.71 1.0E-87 7705683 NT	29677 4.15 1.0E-87 Y00052.1 NT	29700 2.03 1.0E-87 4758827 NT	31042 1.98 1.0E-87 U50949.1	32662 1.94 1.0E-87 AF073371.1 NT	32663 1.94 1.0E-87 AF073371.1  NT	33704 0.84	33705) 0.84) 1.0E-87 AF039517.1  NT	33710 1.03 1.0E-87 4506786 NT	33951 1.17 1.0E-87 11431590 NT	36 34108 0.85 1.0E-87 4506786 NT Homo sapiens IQ motif containing GTP ase activating protein 1 (IQGAP1) mRNA	34403 0.54 1.0E-87 4505526 NT Homo saplens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA	34837 11.12 1.0E-87 4F0714562 1 NT
								Ш																			32662	Ľ							L
5 7 2   L[G[G[G[G[G[G[G[G]G[G]G[G]G[G]G[G]G]G]G]			Ш				Ц	Ц											l l									1					Ш		DAE2 24 422

Page 404 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	Homo sapiens mRNA for alpha2,3-sialytransferase ST3Gal VI, complete cds	Homo sapiens mRNA for alpha2,3-sialytransferase ST3Gal VI, complete cds	RC6-BN0276-050700-012-E02 BN0276 Homo sapiens cDNA	RC8-BN0276-050700-012-E02 BN0276 Homo sapiens cDNA	Human L-plastin mRNA, 5' end	Homo sapiens hect domain and RLD 2 (HERC2), mRNA	Homo saplens sulfotransferase-ralated protein (SULTX3), mRNA	Homo sapiens double stranded RNA activated protein kinase (PKR) gene, exon 12	Homo sapiens mRNA for KIAA1399 protein, partial cds	Homo sapiens mRNA for KIAA1399 protein, partial cds	Homo sapiens DKFZP586P1522 protein (DKFZP586P1522), mRNA	Homo sapiens chromosome 21 segment HS21C009	H.sapiens ECE-1 gene (exon 9)	H. sapiens ECE-1 gene (exon 9)	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes,	complete cds)	Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat	sucibal	Homo sapiens KIAA0063 gene product (KIAA0063), mRNA	K9719F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K9719 6' similar to ZINC FINGER PROTEIN HZF1	Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds	Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds	Homo saplens intersectin short isoform (ITSN) mRNA, complete cds	wd68h08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2336799 3' similar to contains Alu	repetitive element contains element MER22 MER22 repetitive element ;	ym06b10.r1 Scares infant brain 1NIB Homo sapiens cDNA clone IMAGE:47129 5	Homo sapiens chromosome 21 segment HS21C084	602154958F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295775 5'	Homo sapiens KIAA0063 gene product (KIAA0063), mRNA	PM1-TN0028-050900-004-f10 TN0028 Homo sapiens cDNA	PM1-TN0028-050800-004-f10 TN0028 Homo sapiens cDNA	602149762F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4290975 5'	Homo sapiens transforming growth factor, beta-induced, 68kD ( I GFBJ), mRNA
Top Hit Database Source	TN			T_HUMAN	NT	TN	LN	LN	LN	INT	LN	님	FZ	FZ		벌		L	L	EST HUMAN	N LN	L	LZ		EST_HUMAN	EST_HUMAN	L	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	L'N
Top Hit Acession No.	1.0E-87 AB022918.1		BE818183.1	3.1	17 M34426.1	5729867 NT	7657632 NT	38 AF167465.1	9.0E-88 AB037820.1	9.0E-88 AB037820.1	7661701 NT	38 AL 163209.2	X91929.1	38 X91929.1		9.0E-88 AB026898.1		6.0E-88 AF003528.1 NT	7661887	Ì		5.0E-88 AF114488.1	AF114488.1		Τ.		88 AL163284.2	88 BF680206.1	7661887 NT	88 BF091229.1	88 BF091229.1	BF6707	11416585 NT
Most Similar (Top) Hit BLAST E Value	1.0E-87	1.0E-87	1.0E-87	7	1.0E-87	1.0E-87	1.0E-87	9.0E-88	9.0E-88	9.0E-88	9.0E-88	9.0E-88	9.0E-88 X91929.1	9.0E-88		9.0E-88		6.0E-88	5.0E-88	5.0E-88	5.0E-88	5.0E-88	5.0E-88		5.0Ε-88	5.0E-88	5.0E-88	5.0E-88	5.0E-88	4.0E-88	4.0E-	4.0E-88	
Expression Signal	76.0	76.0	89.8	89.9	3.11	1.78	1.46	6.48	2.58	2.56	1.14	0.99	3.27	3.27		-		3.69	1.13	5.45	0.91	77.0	0.77		2.75	3.32						0.81	
ORF SEQ ID NO:	35655		36384	38385	37155				27355		28162			30208		30931		35771		28669		29002				33481	L	36070		27336			
SEQ ID	22228		ı	ı			25978	_	1	l	1		1	17327	ı	18051		22340	14871	l	L		l .		16449			L	l_				Ш
Probe SEQ ID NO:	9260	9260	9991	1666	10739	11084	12675	1108	1351	1351	2130	3642	4298	4298		5038		9375	1845	2647	3013	3023	3023		3400	6936	8261	9996	12435	1332	1332	5185	7454

Page 405 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	Hamo saplens KIAA0152 gene product (KIAA0152), mRNA	Homo saplens KIAA0152 gene product (KIAA0152), mRNA	Homo sapiens hypothetical protein FLJ21634 (FLJ21634), mRNA	Homo sapiens zinc finger protein 259 (ZNF259) mRNA	za48f12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:295823 31	Homo sapiens a disintegrin and metalloproteinase domain 23 (ADAM23) mRNA	Homo saplens a disIntegrin and metalloproteinase domain 23 (ADAM23) mRNA	Homo sapiens hypothetical protein FLJ20220 (FLJ20220), mRNA	Homo sapiens valosin-containing protein (VCP), mRNA	Homo saplens polycythemia rubra vera 1; cell surface receptor (PRV1), mRNA	Homo saplens v-ral simian leukamla viral oncogene homolog A (ras related) (RALA); mRNA	Homo sapiens interfeukin 13 (IL13), mRNA	Homo sapiens activator of S phase kinase (ASK), mRNA	Homo sapiens activator of S phase kinase (ASK), mRNA	Homo sapiens putative anion transporter 1 mRNA, complete cds	Homo sapiens retinoblastoma-binding protein 2 (RBBP2), mRNA	Homo saplens growth differentiation factor 5 (cartilage-derived morphogenetic protein-1) (GDF5), mRNA	Homo saplens molybdenum cofactor blosynthesis protein A and molybdenum cofactor blosynthesis protein C mRNA, complete cds.	Homo sapiens y-ets avian enythroblastosis virus E28 oncodene related (ERG), mRNA	Homo sapiens mRNA for RALDH2-T, complete cds	Homo sapiens mRNA for RALDH2-T, complete ods	Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA	Homo sapiens cubilin (intrinsic factor-cobalamin receptor) (CUBN) mRNA	Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA	Homo sapiens Calsenilin, presenllin-binding protein, EF hand transcription factor (CSEN), mRNA	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds	Homo sapiens dynein, axonemal, light polypeptide 4 (DNAL4), mRNA	UI-H-BI1-aea-d-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718750 3'	U-H-BI1-aea-d-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718750 3'	Homo sepiens KIAA0417 mRNA, complete cds	Homo sapiens KIAA0417 mRNA, complete cds
Top Hit Database Source					EST_HUMAN z										T FX			I E			IN					NT	토		EST_HUMAN U	T_HUMAN		드
Top Hit Acession No.	7661947 NT	7661947 NT	11545800 NT	4508020 NT		-88 4501912 NT	4501912 NT	11429300 NT	11429567 NT	9966888 NT	11420697 NT	11417370 NT	11419210 NT	11419210 NT	88 AF279265.1	11436400 NT	11421726 NT	3.0E-88 AF034374.1	6262	3.0E-88 AB015228.1		11439065 NT	4557502 NT	11417974 NT	7305198 NT	38 AF246219.1	2.0E-88 AF246219.1	5031666 NT	38 AW139565.1	1		
Most Similar (Top) Hit BLAST E Value	4.0E-88	4.0E-88	3.0E-88	3.0E-88	3.0E-88	3.0E-88	3.05-88	3.0E-88	3.0E-88	3.0E-88	3.0E-88	3.0E-88	3.0E-88	3.0E-88	3.0E-88	3.0E-88	3.0E-88	3.05-88	3.0E-88	3.0E-88 /	3.0E-88	3.0E-88	3.0E-88	3.0E-88	2.0E-88	2.0E-88	2.0E-88	2.0E-88	1.0E-88	1.0E-88	1.0E-88	1.0E-88
Expression Signal .	3.12	3.12	0.85	1.78	2.51	0.93	0.93	3.64	2.45	4.05	3.62	96.0	0.77	77.0	15.04	6.35	10.99	1.28	2.14	0.74	0.74	66'0	3.65	7.12	61.67	1.66	4.07	1.86	5.17	5.17	23.82	23.82
ORF SEQ ID NO:	38282	38283			78874		30176		31350	31830	32063	32593	32877	32878	33302	34114	34632	34923	34512	36896	36697	36721	38554		27033	27637	27779	30369	32300	32301	33141	33142
Exan SEQ ID NO:			13794	. 1	16016	17298		17529	1	18761	18881	19357	25662	25662	20002	20741	21222	21508	21112	23213	23213	23240	24958	25191	14083	14661	14794		19099	19099	19856	19856
Probe SEQ ID NO:	11818	11818	733	1829	2958	4269	4269	4504	5372	5666	6829	6285	8259	6553	7267	7788	8253	8538	9789	10288	10288	10316	12086	12421	1037	1628	1765	4455	6016	6018	6802	6802

Page 406 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

								Ţ											7			$\neg$									7
Single Exon Probes Expressed in Boile Mariow	Top Hit Descriptor	wq70a12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2476606 3'	aa54a11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:824732 3' similar to WP:B0272.2 IO:E00851 :	Homo sapiens Recq helicase 5 (RECQ5) gene, alternative splice products, complete cds	2987c02.r1 Stratagane HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:627170 5' similar to SW.POL1_HUMAN P10266 RETROVIRUS-RELATED POL POLYPROTEIN;	DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5'	os91g03.s1 NCI_CGAP_GC3 Homo sapiens oDNA clone IMAGE:16127563' sImilar to gb:M16342 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEINS C1/C2 (HUMAN);	Homo saplens chromosome 21 segment HS21C046	Homo sapiens transgelin 2 (TAGLN2), mRNA	601142409F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506186 5'	Homo sapiens similar to sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semanhorin) 3A (H. sapiens) (LOC63232), mRNA	Homo sapiens hormonally upregulated neu fumor-associated kinase (HUNK), mRNA	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA	Homo sapiens complement component 8, beta polypeptide (C8B) mRNA	DKFZp434E246_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434E246 5'	H,sapiens CLN3 gene, complete CDS	H.sapiens CLN3 gene, complete CDS	Homo sapiens plastin 3 (T isoform) (PLS3), mRNA	Homo sapiens plastin 3 (T isoform) (PLS3), mRNA	Homo sapiens actin related protein 2/3 complex, subunit 1A (41 kD) (ARPC1A), mRNA	Homo sapiens KIAA0433 protein (KIAA0433), mRNA	Homo sapiens KIAA0433 protein (KIAA0433), mRNA	Human 65-kilodalton phosphoprotein (p65) mRNA, complete cds	H.saplens Wee1 hu gene	H.sapiens Wee1 hu gene	Homo sapiens mRNA for KIAA0823 protein, partial cds	Homo sapiens mRNA for KIAA0823 protein, partial cds	Homo saplens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA	Homo sapiens serine/threonine-protein kinase PRP4 homolog (PRP4) mKNA	Homo sapiens ubiquitin-conjugating enzyma E2L 3 (UBE2L3) mRNA	Homo sapiens upiquiun-conjugating enzyme Ezic 3 (OBERICS) IIINNY
XOU FIODES	Top Hit Database Source	EST_HUMAN	NAMILIA TRE	LZ	EST_HUMAN	EST_HUMAN	EST_HUMAN	LN	NT	EST_HUMAN	Į.	FZ PZ	LN	LN LN	EST_HUMAN	NT	Ŋ	L	TN	IN	LN	IN	NT	IN	LN	LN	NT	Z	뒫	Ę	E
Single	Top Hit Acession No.	88 A1969034.1	88 A A 488081 1			88 AL043314.2		:-88 AL163246.2	11421238 NT	8.0E-89 BE311557.1	1514	7657213 N.T	7657213 NT	4557390 NT	-89 AL045748.1		-89 X99832.1	7549808 NT	7549808 NT	11420754 NT	11417118 NT	11417118 NT	02923.1	(62048.1	7.0E-89 X62048.1	\B020630.1	7.0E-89 AB020630.1	5803114 NT	4506124 NT	4507788 NT	4507788INT
	Most Similar (Top) Hit T BLAST E Value	1.0E-88 A	4 98 HO 4			1.0E-88 A	1.0E-88 A	1.0E-88 A	9.0E-89	8.0E-89	08 30 0	2.0E-89	7.0E-89	7.0E-89	7.0E-89 A	7.0E-89 X	7.0E-89	7.0E-89	7.0E-89	7.0E-89	7.0E-89	7.0E-89	7.0E-89 J02923.1	7.0E-89 X62048.1	7.0E-89	7.0E-89	7.0E-89	6.0E-89	6.0E-89	6.0E-89	6.0E-89
	Expression Signal	1.29	ç	0.47	1.09	2.73	3.86	1.91	3.66	1.74	7 3	121	12	2.95	4.02	1.22	1.22	0.77	0.77	1.42	0.57	75.0	3.88	1.25	1.25	1.11	1.11	1.23	1.17	0.99	0.99
	ORF SEQ ID NO:	33644	20744		36050	36327			37774		89000	26440	26441		١.							34590		37324		37347	37348	27022	28261		28465
	Exon SEQ ID NO:	20300	03600	21445	22601	22865	23928	25324	24248	15738	000	13507	13507	17936	17982	18605	18605	19542	19542	20695		21180	21790	١.	23817	23833	<u> </u>	14071			15447
	Probe SEQ ID NO:	7329	9	9476	9597	9638	11773	12640	11298	2745	,	433	¥33	4919	4987	5505	5505	6477	6477	7741	8211	8211	8823	10897	10897	10913	10913	1025	2223	2440	2440

Page 407 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Single Exon Frones Extressed in Bone Marrow	Top Hit Descriptor	Homo sapiens mRNA for KIAA0406 protein, partial cds	Homo sapiens mRNA for KIAA0406 protein, partial cds	TCBAP2E0383 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA cione TCBAP0383	TCBAP2E0383 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens	cDNA clone TCBAP0383	QV3-NT0022-080600-219-g03 NT0022 Homo sapiens cDNA	EST388290 MAGE resequences, MAGN Homo sapiens cDNA	qh17b06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:18449153'	yw86e11.r1 Soares_placenta_8to9weeks_2NbHp8to9W Homo sapiens cDNA clone IMAGE:259148 5' similar to SW:PI4K_HUMAN P42356 PHOSPHATIDYLINOSITOL 4-KINASE ALPHA;	Homo sapiens PXR2b protein (PXR2b), mRNA	Homo sapiens PXR2b protein (PXR2b), mRNA	Homo sapiens PXR2b protein (PXR2b), mRNA	Homo sapiens PXR2b protein (PXR2b), mRNA	Homo sapiens mRNA for KIAA1342 protein, partial cds	qg98c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPEPTIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element;	ah70e03.s1 Scares_testis_NHT Homo sapiens cDNA clone 1320988 3'	ah70e03.s1 Soares_testis_NHT Homo sapiens cDNA clone 1320988 3'	Homo saplens topoisomerase-related function protein (TRF4-2) mRNA, partial cds	H.sapiens HCK gene for tyrosine kinase (PTK), exons 10-11	H.sapiens HOK gene for tyrosine kinase (PTK), exons 10-11	Homo sapiens chromosome 21 segment HS21C003	Homo saplens GGT gene, exon 5	601065996F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452423 5'	Homo sapiens gene for LECT2, complete cds	Human N-ethylmaleimide-sensitive factor mRNA, partial cds	Homo saplens chromosome 21 segment HS21C085	Human GT24 (GT24) mRNA, partial cds	Homo sapiens solute carrier family 24 (sodium/potassium/calcium exchanger), member 2 (SLC24A2), mRNA
Sanoi Pilones	Top Hit Database Source	TN	N	EST HUMAN		EST HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	FN	L	FZ	LN L	TN	EST HUMAN	EST HUMAN	EST_HUMAN	TN	NT	NT	LN	NT	EST_HUMAN	NT	NT	TN	NT	ΤN
alguic	Top Hit Acession No.	6.0E-89 AB007866.2	4B007866.2	89 BE244323.1		89 BE244323.1			-89 AI217359.1	V57357.1	-89 N 0799077	TN06870 NT	T706670 NT	T706670 NT	89 AB037763.1	89 AI222095.1	89 AA759149.1	-89 AA759149.1	4F089897.1	<b>(58742.1</b>		-89 AL163203.2	4,1007378.1	:-89 BE541744.1	4B007546.1	J03985.1	89 AL 163285.2	89 U81004.1	11428801 NT
	Most Similar (Top) Hit BLAST E Value	6.0E-89	6.0E-89	5.05-89		5.0E-89	4.0E-89	3.0E-89	3.0E-89/	3.0E-89	2.0E-89	2.0E-89	2.0E-89	2.0E-89	2.0E-89/	2.0E-89	2.0E-89 /	2.0E-89 /	2.0E-89 /	2.0E-89 X58742.1	2.0E-89	2.0E-89 /	2.0E-89 /	2.0E-89 E	2.0E-89/	2.0E-89 L		2.0E-89 (	2.0E-89
	Expression Signal	4.04	4.04	3.41		3.41	0.84	1.1	1.25	1.79	0.68	0.68	0.64	0.64	0.93	1.71	0.65	0.65	1.41	4.98	4.98	0.83	1.1	1.39	2.77	1.69	0.67	4.07	2.9
	ORF SEQ ID NO:		30574	30995			34164		33663	37636	26416	26417	26416		26520	28867	29532	29533		86008	66008	30284			31600	32167		34263	34646
	Exon SEQ ID NO:	17688	17688	18121	1	- 1			20317	24111	13481	13481	13481	13481	13602	15951	16611	16611	17200	17211	17211					18975		20874	21235
	Probe SEQ ID NO:	4667	4667	5111		5111	7842	2888	7347	11151	127	127	408	408	531	2892	3565	3565	4169	4180	4180	4376	4524	5416	5558	5886	6335	7931	8266

Page 408 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Onigio Exoni i obes Expressed III Dolle Mallow	Top Hit Descriptor	Homo saplens partial mRNA for PEX5 related protein	Homo saplens mRNA for KIAA1333 protein, partial cds	Homo sapiens CaBP5 (CABP5) gene, exon 5	Homo sapiens CaBP5 (CABP5) gene, exon 5	Homo sapiens integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor) (ITGA3), mRNA	Homo saplens cell adhesion molecule with homology to L1CAM (close homologue of L1) (CHL1). mBNA	Human MAGE-7 antigen (MAGE7) pseudogene, complete cds	hr81d09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22 -LIKE 2 PROTEIN ;	hr81d09.x1 NOLOGAP, Kid11 Homo saplens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22-LIKE 2 PROTEIN :	Homo saplens chromosome 21 segment HS21 C046	Homo sapiens chromosome 21 segment HS21 C046	Homo sapiens chromosome 21 segment HS21C046	Homo saplens chromosome 21 segment HS21 C048	7e36108.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284583 31	7e36f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284583 3'	RC1-HT0598-120400-022-b08 HT0598 Homo saplens cDNA	z/82g10.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:4614423'	z/82g10.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:461442 3'	Homo sapiens calclum channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced	ai63d08.s1 Soares_testis_NHT Homo sapiens cDNA clone 1375503 3'	601655837R1 NIH_MGC_66 Homo saplens cDNA clone IMAGE:3855824 3'	601555837R1 NIH_MGC_66 Homo saplens cDNA clone IMAGE:3855824 3'	y88604.s1 Soares felal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212190 3' similar to SP:C1TC_HUMAN P11586 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC;	y86e04.sr Soares fetal Iver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212190 3' similar to SP:C1TC HUMAN P11586 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC:	602071208F1 NCI_CGAP_Bm64 Homo sapiens cDNA clone IMAGE:4214257 51	H.saplens ECE-1 gene (exon 6)	Hearlane FCE 1 years (even 6)
VALLE LODGE LA	Top Hit Database Source	F F	TN LN	T L	E I			E F	EST_HUMAN S	EST HUMAN S	П	Į.		H	EST_HUMAN 76	П	EST_HUMAN R	EST_HUMAN Z	EST_HUMAN	H N	EST HUMAN ai		EST_HUMAN &	EST_HUMAN SI	EST HUMAN SI	EST_HUMAN 60	Г	
1 58.0	Top Hit Acession No.		89 AB037754.1	89 AF170814.1	89 AF170814.1	11434411 NT	11433673 NT	89 U10692.1	89 BF196052.1		-90 AL163246.2		8.0E-90 AL163246.2					90 AA705222.1	90 AA705222.1	7.0E-90 AF223391.1			7.0E-90 BE962525.2	7.0E-90 H68849.1	7.0E-90 H68849.1	_		
	Most Similar (Top) Hit BLAST E Value	2.0E-89	2.0E-89	2.0E-89	2.0E-89 /	2.0E-89	2.0E-89	20E-89	1.0E-89 E	1.0E-89 E	9.0E-90	9.0E-90	8.0E-90	8.0E-90	8.0E-90	8.0E-90	8.0E-90	8.0E-90	8.0E-90	7.0E-90	7.0E-90.7	7.0E-90	7.0E-90 E	7.0E-90 H	7.0E-90 F	7.0E-90	6.0E-90 X91926.1	6 0F-90 l
	Expression Signal	0.94	29.0	1.11	1.11	2.63	3.64	1.63	5.65	5.65	1.77	1.77	1.93	2.43	4.85	4.85	0.78	1.68	1.68	3.74	2.07	1.82	1.82	2.08	2.08	0.58	96.0	0.98
	ORF SEQ ID NO:		36065	36572	36673	38243	38363	38497	38372	38373	34957	34958	27059			27339	35298	37848	37849			35712	35713	36915	36916	ı		
	Exen SEQ ID NO:		22612	23094	23094	24666	24777	24902	24784	24784		21537				1			24321	13894		22282		23417	23417	23742	16138	ı
	Probe SEQ ID NO:	8760	9608	10169	10169	11701	11896	12026	11903	11903	8569	8569	1064	1065	1333	1333	8906	11374	11374	837	8767	9317	9317	10495	10495	10821	3081	3081

Page 409 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

		Γ		Г	Т	Г		П			Γ	Г	Г	Г	Г			П	П						T	Т	T	
Top Hit Descriptor	Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA	Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA	Homo sapiens HsGCN1 mRNA, partial cds	Homo sapiens HsGCN1 mRNA, partial cds	Homo saplens Inositol 1,4,5-triphosphate receptor, type 3 (ITPR3) mRNA	Homo sapiens inositol 1,4,5-triphosphate receptor, type 3 (ITPR3) mRNA	Homo sapiens TOL6 gene, exon 1-10b	Human gamma-aminobutyric acid transaminase mRNA, partial cds	qg96co8.x1 Scares_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPEPTIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element,	qg96c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPEPTIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element,	Homo sapiens intersectin long isoform (ITSN) mRNA, complete cds	Homo sapiens pregnancy-zone protein (PZP) mRNA	Homo sapians chromosome 21 segment HS21C001	H.sapiens mRNA encoding phospholipase c	Homo sapiens EVI5 homolog mRNA, complete cds	Homo saplens ELKS mRNA, complete cds	H.saplens mRNA encoding phospholipase c	Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA	Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA	Homo saplens anglopoletin 4 (ANG4) mRNA, partial cds	Homo sapiens angiopoletin 4 (ANG4) mRNA, partial cds	Homo saplens adenylate cyclase 9 (ADCY9) mRNA	Homo saplens hypothetical protein FLJ13222 (FLJ13222), mRNA	Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA	Homo sabiens calcium-bluding transporter mRNA, bartial cds	Homo sabiens KIAA0433 protein (KIAA0433), mRNA	Homo sapiens KIAA0433 protein (KIAA0433), mRNA	Homo sapiens ATPase, aminophospholipid transporter-like, Class I, type 8A, member 2 (ATP8A2), mRNA
Top Hit Database Source	K	N	NT	LN-	IN	N	ŊŢ	NT	EST_HUMAN	EST_HUMAN	N.	F	FZ	LN	N	L	N.	NT	NT	IN	IN	NT.	Į	Ŀ	Į.	Ę	5	NT
Top Hit Acessian No.	F822398 NT	R922398	E-90 U77700.1	E-90 U77700.1	4504794 NT	4504794 NT	1.1		6.0E-90 A1222095.1	5.0E-90 AI222095.1		4506354 NT	E-90 AL163201.2	Γ	Γ		5.0E-90 Z16411.1	9910365 NT	6.0E-90 9910365 NT			4557258 NT	11345483 NT	11410420		5 0F-90 11417118 NT	11417118INT	11433721 NT
Most Similar (Top) Hit BLAST E Value	6.0E-90	6.0E-90	6.0E-90	6.0E-90	8.0E-90	6.0E-90	5.0E-90	5.0E-90 U80226.1	6.0E-90	5.0E-90	5.0E-90 /	5.0E-90	5.0E-90	5.0E-90 Z16411.1	5.0E-90/	6.0E-90	5.0E-90.2	5.0E-90	6.0E-90	5.0E-90	5.0E-90	5.0E-90	5.0E-90	20 10	5 OF 90 4	5 0F-90	5 05-90	5.0E-90
Expression Signal	9.77	9.77	3.07	3.07	3.16	3.16	25.61	1.84	1.33	1.33	2,8	1.32	0.7	2,66	0.61	1.34	2.22	0.73	0.73	2.09	2.09	8.82	4.98	- 7	747	0 53	0.53	5.86
ORF SEQ ID NO:	30164	30165	32393	32394	35061			27192	27860	27861	28582	30487	30508	31939	-	32052	31939	33242		33741	33742	34138	35028	36433				
Exon SEQ ID NO:	17283	L	19176	19176	21638		13259	14237	14863	14863	15563	17593	17614	18767	18785	18869	18767	19946	$\Box$	_	l _	20762	21604	22066	L		23698	
Probe SEQ ID NO:	4254	4254	6097	6097	8670	8670	156	1197	1836	1836	2562	4571	4593	5672	2690	5777	5860	6894	6894	7423	7423	7813	8636	10030	10844	107777	107777	10813

Page 410 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

					. a.B.		
Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Vælue	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
10871	П			5.0E-90	7662051 NT	Ę	Homo sapiens KIAA0317 gene product (KIAA0317), mRNA
10871		37292			7662051 NT	LN	Homo sapiens KIAA0317 gene product (KIAA0317), mRNA
12872	25506		2.89	9.0E-90	AB011399.1	۲N	Homo saplens gene for AF-6, complete cds
12920			4.66	9.0E-90	AI523366.1	EST_HUMAN	ar78h05.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2128761 3'
302	L			4.0E-90	AF231920.1	LΝ	Homo sapiens chromosome 21 unknown mRNA
302	13398	26324	2.82	4.0E-90	AF231920.1	Z	Homo sapiens chromosome 21 unknown mRNA
1088				4.0E-9	4505316 NT	LN	Homo sapiens myosin phosphatase, target subunit 1 (MYPT1), mRNA
1698				4.0E-9(	) X99033.1	NT	H.sapiens gene encoding discoldin receptor tyrosine kinase, exon 16
4686			6.15	4.0E-90	D87675.1	ΙN	Homo sapiens DNA for amyloid precursor protein, complete cds
4835	17852	30751	2.4	4.0E-90	AB033070.1	님	Homo sapiens mRNA for KIAA1244 protein, partial cds
4856	17873	30761	1.96	4.0E-90	M95967.1	N	Human prohormone converting enzyme (NEC2) gene, exon 8
12134			1.75		D31124.1	EST_HUMAN	HUML12582 Human fetal lung Homo sapiens cDNA 5'
8185			1.72	3.0E-90	BF516168.1	EST_HUMAN	UI-H-BW1-eny-b-04-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083839 3'
8185	1			3.0E-90	BF516168.1	EST_HUMAN	UI-H-BW1-any-b-04-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083839 3'
11951	'	38426	95.78	,	BE563833.1	EST_HUMAN	601335244F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3689147 5'
215		26243		2.0E-90	BE53791	EST_HUMAN	601067378F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453834 5'
1177	14218			2.0E-90		LΝ	Homo saplens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA
1177	14218	27174	46.4		5031748 NT	N	Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA
3859	16898	29801	2.03	06-30°C	AI138213.1	EST HUMAN	qc54c02.x1 Soares_placenta_8to9weeks_ZNbHP8to9W Homo saplens cDNA clone IMAGE:1713410 3' similar to SW:01F3 MOLISE P23275 01FACTORY RECEPTOR OR3
4714	ł		1.17	2.0E-90	AB006627.1	۲	Homo sapiens mRNA for KIAA0289 gene, partial cds
4947	ı		9.22	2.0E-90	5729855 NT	TN	Homo sapiens GRB2-related adaptor protein (GRAP) mRNA
5870	18959	32147	0.57	2.0E-90	11525901 NT	LN	Homo sapiens RaP2 Interacting protein 8 (RPIP8), mRNA
5870	18959	32148	0.57	2.0E-90	11525901 NT	LN	Homo sapiens RaP2 Interacting protein 8 (RPIP8), mRNA
5879	18968	32159	4.7	2.0E-90	AW672686.1	EST_HUMAN	be49d05.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2899881 5' similar to TR:O75208 O75208 HYPOTHETICAL 35.5 KD PROTEIN.;
10149	23075	36550	8.23	2.0E-90	11427320 NT	Ę	Homo saplens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC63484). mRNA
10149	23075	36551	8.23	2.0E-90	11427320 NT	FZ	Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC63484). mRNA
10319	23243			2.0E-90	AU118985.1	EST_HUMAN	AU118985 HEMBA1 Hamo sapiens cDNA clone HEMBA1004795 5'
10319	1		1.27	2.0E-90	AU118985.1	EST_HUMAN	AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5'
11798	23953	37475			11024711 NT	NT	Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA

Page 411 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		_	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_,		_	_	_	_		_	
Top Hit Descriptor	Homo sapiens amyloid beta (A4) precursor protein (protease nextn-II, Alzheimer disease) (APP), mRNA	Homo sapiens chromosome 21 unknown mRNA	Homo sapiens chromosome 21 unknown mRNA	Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial	Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial	Homo sapiens ALR-like protein mRNA, partial cds	Homo sapiens ALR-like protein mRNA, partial cds	Homo saplens Kruppel-like factor 7 (ubiquitous) (KLF7), mRNA	Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3	Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3	601159563F2 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3511118 5'	Homo sapiens similar to SALL1 (sal (Drosophila)-like (LOC57167), mRNA	Homo sapiens chromosome 8 open reading frame 2 (C8ORF2), mRNA	Homo sapiens mRNA for KIAA0903 protein, partial cds	Homo sapiens mRNA for KIAA0903 protein, partial cds	Homo sapiens soluble interleukin 1 receptor accessory protein (IL1RAP) gene, exon 8, alternative exons 9	and complete cds, alternatively spliced	Homo sapiens mRNA for KIAA1399 protein, partial cds	Homo sapiens mRNA for KIAA1399 protein, partial cds	Homo sapiens mRNA for KIAA0633 protein, partial cds	Homo sapiens KIAA0623 gene product (KIAA0623), mRNA	Human retina-derived POU-domain factor-1 mRNA, complete cds	Homo sapiens glutamate receptor, ionotropic, N-methy D-espartate 2A (GRIN2A) mRNA	Homo sapiens solute carrier family 1 (high affinity aspartate(glutamate transporter), member 6 (SLC1A6),	ImRNA	Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA	Homo sapiens SNCA Isoform (SNCA) gene, complete cds, alternatively spliced	Homo saplens CGI-15 protein (LOC51006), mRNA	Homo sapiens CGI-15 protein (LOC51006), mRNA	H.sapiens cDNA for CREB protein	H.sapiens cDNA for CREB protein	yg44d11.r2 Soares Infant brain 1NIB Homo saplens cDNA clone IMAGE:35477 5'	HUM000S381 Liver HepG2 cell line. Homo sapiens cDNA clone s381 3'
Top Hit Database Source	LN	LZ LZ	TN	NT	ΤN	TN	LN	NT	N	ᄓ	EST_HUMAN	LN	LZ LZ	۲N	FZ.	!	NT	NT	뉟	Ŗ	F	ᅜ	닐	,	L	L	ΝT	LN L	FZ	N	NT	EST_HUMAN	EST HUMAN
Top Hit Acession No.	4502166 NT	E-90 AF231920.1	1.0E-90 AF231920.1	1.0E-90 AJ237589.1	E-90 AJ237589.1	E-90 AF264750.1	E-90 AF264750.1	4507828 NT	1.0E-90 AF096154.1	1.0E-90 AF096154.1	E-90 BE379884.1	11420514 NT	6005720 NT	E-90 AB020710.1	E-90 AB020710.1		1.0E-90 AF167340.1	(B037820.1	E-90 AB037820.1	E-90 AB014533.1	11426910 NT	E-90 U91934.1	6006002 NT		11426758 NT	11422086[NT	E-90 AF163864.1	11422109 NT	11422109 NT	E-90 X55545.1	E-90 X55545.1	E-90 R25686.1	E-91 D12234.1
Most Similar (Top) Hit BLAST E Value	1.0E-90	1.0E-90	1.0E-90	1.0E-90	1.0E-90.∤	1.0E-90	1.0E-90/	1.0E-90	1.0E-90	1.0E-90.1	1.0E-90 E	1.0E-90	1.0E-90	1.0E-90	1.0E-90		1.0E-90 /	1.0E-90 A	1.0E-90 ∤	1.0E-90.h	1.0E-90	1.0E-90 L	1.0E-90		1.0E-90	1.0E-90	1.0E-90	1.0E-90	1.0E-90	1.0E-90.X	1.0E-90	1.0E-90 F	8.0E-91
Expression Signal	3.99	1.13	2.04	2.65	2.55	17.02	17.02	2.23	2.99	2.99	1.76	2.77	7.85	0.72	0.72		1.17	1.7	1.7	1.78	0.99	0.67	9.0		2.63	3.96	1.08	1.38	1.38	0.53	0.53	2.13	60.9
ORF SEQ ID NO:	26300	26389					26729					27938			29811		·	31140	31141	32031		33313	33851		34266			36075		37424	37425		30140
Exen SEQ ID NO:	13372	15812		13758	13758	13792	13792	14156	14345	14345	14708	14942	15926	16904			- 1	1	18277	18851	19022		20489	[	1		22592	22623	į .	1	1	ĺĺ	17263
Probe SEQ ID NO:	278	374	375	969	969	731	731	1112	1309	1309	1676	1918	2866	3865	3865		4453	5270	5270	5758	5936	7276	7525		7934	9173	9648	9870	9670	10990	10990	11021	4224

Page 412 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

				П			ŭ.	Г		Г	SE .	1	Γ			_	Τ				Г					Γ	П	
	Top Hit Descriptor	Homo sapiens makorin, ring finger protein, 1 (MKRN1), mRNA	CM-BT043-090299-075 BT043 Homo saplens cDNA	z90b04.s1 Soares_feta_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448015 3'	AU143539 Y79AA1 Homo saplens cDNA clone Y79AA1002087 5'	AU143539 Y79AA1 Homo saplens cDNA clone Y79AA1002087 5'	au49f09.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518121 3' similar to SW:ASPG_FLAME Q47898 N4-(BETA-N-ACETYLGLUCOSAMINYL.)-L-ASPARAGINASE PRECURSOR;	601901624F1 NIH_MGC_19 Homo saplens cDNA clone IMAGE;4130933 5'	AV649878 GLC Homo sapiens cDNA clone GLCBYF08 3'	AV649878 GLC Homo saplens cDNA clone GLCBYF08 3'	qe70f11.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA done iMAGE:1744365 3' similar to contains MIR.b2 MIR MIR repetitive element ;	Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds	Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds	Homo sapiens chromosome 21 segment HS21C084	EST01579 Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein	EST01579 Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag pohyprotein	Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3), mRNA	Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3), mRNA	Homo sapiens chromosome 21 segment HS21C083	Homo sapiens mRNA for KIAA1278 protein, partial cds	Homo sapiens mRNA for KIAA1278 protein, partial cds	Homo sapiens cyclin-D binding Myb-like protein mRNA, complete cds	Human Ku (p70/p80) subunit mRNA, complete cds	Homo sapiens chromosome 21 segment HS21C085	Homo saplens chromosome 21 segment HS210085	Homo sapiens epididymal secretory protein (19.5kD) (HE1), mRNA	Homo sapiens cyclin-dependent kinase 6 (CDK6) mRNA	Homo sapiens gamma-aminobutyric acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA
	Top Hit Database Source	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN	EST HUMAN	NT =	Į.	LN	EST_HUMAN	EST HUMAN	N F	LN	LN	N	N	LN	LΝ	TN	NT	LN	NT	NT
2.6	Top Hit Acession No.	11419234 NT	91 AI904151.1	5.0E-91 AA702794.1	Γ		91 A1879995.1	91 BF314682.1	91 AV649878.1	91 AV649878.1	.91 Al193566.1				91 M77994.1	91 M77894.1	11430193 NT	11430193 NT	91 AL163283.2	91 AB033104.1	-91 AB033104.1	91 AF084530.1	-91 M30938.1	-91 AL163285.2	91 AL163285.2	11434964 NT	4502740 NT	11497611 NT
	Most Similar (Top) Hit BLAST E Value	7.0E-91	7.05-91	5.0E-91	5.0E-91	5.0E-91	5.0E-91	5.0E-91	5.0E-91	5.0E-91	5.0E-91	4.0E-91	4.0E-91	4.0E-91	4.0E-91	4.06-91	3.0E-91	3.0E-91	3.0E-91	3.0E-91	3.0E-91	3.0E-91	3.05-91	3.0E-91	3.0E-91	3.0E-91	3.0E-91	3.0E-91
	Expression Signal	4.36	0.67	1.71	1.05	1.05	1.19	1.65	1.28	1.28	2.28	1.41	1.41	3.24	1.55	1.55	5.97	5.97	1.76	3.84	3.84	1.47	4.36	1.3	1.3	1.43	2.97	3.34
	ORF SEQ ID NO:	35039	37083		30454		33108	34933	35508			29192		37755		31858		27631	29323		29446			30915	30916	32041		33071
	SEQ ID	21617	23585	16534	17567	17567	19825	21515	22079	[	25479	l	ı	ı	25159	25159	14654	14654	16401	16522	16522	16842	17642	18030	18030	18862	19503	19791
i	Probe SEQ ID NO:	8649	10663	3488	4544	4544	6770	8547	9113	9113	12892	3216	3215	11276	12377	12377	1621	1621	3350	3476	3476	3802	4621	5016	5016	6770	6437	6735

Page 413 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exon Probes Expressed in Bone Marrow	ORF SEQ Expression (Top) Hit Acession Database ID NO: Signal BLASTE No. Source Surce	3.34 3.0E-91 11497611 NT Homo sapiens gamma-eminobutyric acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA	34228 4.07	34227 4.07	34659	35517 2.51 3.0E-91 D16494.1	36036 0.6	37707 2.53	38028 2.3	38027 2.3	TIN 1 2070107 NO 20 0 01 N 10710	31174 3 88 3 DE-01 AF149565 1	2447E 2 2 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	26078 2.39 1.0E-91 AL163284.2	27252 7.11 1.0E-91 AW 449748.1 EST HUMAN	31498 0.73 1.0E-91 11434402 NT	33484 1.9 1.0E-91 BF348182.1 EST_HUMAN	33465 1.9 1.0E-91 BF348182.1 EST HUMAN	34498 0,59 1.0E-	27246 8.04 9.0E-92/AJ001689.1 NT	27247 6.04 9.0E-92 AJ001689.1  NT	31576 2.94 9.0E-92 J03007.1	31953 2.18 9.0E-92 11427149 NT	32928 3.86	34569 0,47 9.0E-92[AJ250566.1 NT	34570 0.47 9.0E-92 AJ250566.1	35112 1.73 9.0E-	35113 1.73	36023 1.69 9.0E-92 11422086 NT	26132 3.76 8.0E-92 W26367.1  EST_HUMAN	26308 4.52 8.0E-92 BE386363.1  EST_HUMAN	27863 1.06 8.0E-92 11434722 NT	27864 1.06 8.0E-
	ORF SEQ ID NO:	33072					36036			38027						L		33465	34498	27246			31953		34569					26132		-	
	Exen SEQ ID NO:	19791	20843		_		22587	24188		24477	25244		L			L	١.	20146	21099	14283			18781	19656				21685			ŀ	- 1	14865
	Probe SEQ ID NO:	6735	7900	7900	8278	9123	9643	11235	11536	11536	4.0800	12950	12050	09	1250	5487	7020	7020	8161	1246	1248	5538	5886	6596	8190	8190	8717	8717	9629	92	285	1838	1838

Page 414 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

	Top Hit Descriptor	au83h08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782911 3' similar to TR:060302 060302 KIAA0555 PROTEIN , contains element MER22 repetitive element ;	n, partial cds	Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete ods		Homo sapiens DNA polymerase zeta catalytic subunit variant 1 (REV3L) mRNA, complete cds	otein 1 mRNA, complete cds	, mRNA	ne, exon 11	ne, expn 11	stor, RNA polymerase II (TTF2), mRNA	in, partial cds		Homo sapiens nuclear mitogen- and stress-activated protein kinase-1 (MSK1) mRNA, complete cds	Homo saplens dihydrolipoamide S-succinyttransferase (E2 component of 2-oxo-glutarate complex) (DLST) mRNA	7.1 ancestral hanlottne	in, partial cds	in, partial cds	ated isoform mRNA, complete cds	3CL7B) mRNA	2, yeast) homolog (ACTR2), mRNA	2, yeast) homolog (ACTR2), mRNA	Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds	55E), mRNA	7.1 ancestral haplotype	nd metastasis 1 (TIAM1) mRNA	ind metastasis 1 (TIAM1) mRNA	N-CAM≕145 kda neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2960 nt]	N-CAM=145 kda neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2960 nt]
		au83h08.x1 Schneider fetal brain 00004 P TR:O60302 O60302 KIAA0555 PROTEIN	Homo sapiens mRNA for KIAA1600 protein, partial cds	Homo saplens FYVE domain-containing dods	Homo sapiens MCP-4 gene	Homo sapiens DNA polymerase zeta cata	Homo sapiens double FWE-containing protein 1 mRNA, complete cds	Homo sapiens AIM-1 protein (LOC51151), mRNA	Human lens membrane protein (mp19) gene, exon 11	Human lens membrane protein (mp19) gene, expn 11	Homo saplens transcription termination factor, RNA polymerase II (TTF2), mRNA	Homo saplens mRNA for KIAA0611 protein, partial cds	Homo saplens mRNA for MBNL protein	Homo saplens nuclear mitogen- and stres	Homo saplens dihydrolipoamide S-succinimRNA	Homo sapiens DNA MHC class I region 7.1 ancestral hanlottoe	Homo sapiens mRNA for KIAA0758 protein, partial cds	Homo sapiens mRNA for KIAA0758 protein, partial cds	Homo sapiens cytoplasmic Seprase truncated isoform mRNA, complete cds	Homo sapiens B-cell CLUlymphoma 7b (BCL7B) mRNA	Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA	Homo saplens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA	Homo sapiens cystelne-rich repeat-contail	Homo saplens NRAS-related gene (D1S155E), mRNA	Homo sapiens DNA, MHC class I region, 7.1 ancestral haplotype	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA	N-CAM≕145 kda neural œll adhesion mol ntj	N-CAM=145 kda neural cell adhesion mol
	Top Hit Database Source	EST_HUMAN	L'N	L	N.	L	LN	NT	NT	NT	N	LN	NT L	N	Þ	Į.	Z	TN	M	TN	Ę	INT	LN	LN	NT	LN	NT	, LN	۲N
0.6	Top Hit Acession No.	4W157571.1	8.0E-92 AB046820.1	4F264717.1	8.0E-92 AJ000979.1	8.0E-92 AF179428.1	4F251025.2	8.0E-92 11416961 NT	_04193.1	04193.1	11426569 NT	AB014511.1	8.0E-92 Y13829.1	8.0E-92 AF074393.1	4503340 NT	7 DE 92 AB031007 1	7.0E-92 AB018301.1	7.0E-92 AB018301.1	4F007822.1	4502384 NT	5031570 NT	7.0E-92 5031570 NT	4F167706.1	6005738 NT	7.0E-92 AB031007.1	4507500 NT	4507500 NT	S71824.1	7.0E-92 S71824.1
	Most Similar (Top) Hit BLAST E Value	8.0E-92	8.0E-92	8.0E-92	8.0E-92	8.0E-92	8.0E-92	8.0E-92	8.0E-92 L04193.1	8.0E-92	8.0E-92	8.0E-92	8.0E-92	8.0E-92	8.0E-92	7 NF.92	7.0E-92/	7.0E-92	7.0E-92	7.0E-92	7.0E-92	7.0E-92	7.0E-92	7.0E-92	7.0E-92	7.0E-92	7.0E-92	7.0E-92	7.0E-92
	Expression Signal	0.7	0.84	0.81	1.19	0.79	1.16	0.58	3.52	3.52	99.0	2.48	1.86	3.34	1.72	1 60	0.89	0.89	1.22	1.14	3.62	3.62	1.27	2.96	1.31	76.0	76.0	1.44	1.44
	ORF SEQ ID NO:	31028	31478		33031		34491				35258	35820		37640	38233	L				27283							29328		
	Exon SEQ ID NO:	18149	18568	18672	-	١	1	21397				22382	23308	24114	24654		15836	l	13660	14320	15212					ı	1	17638	1 1
	Probe SEQ ID NO:	5140	5466	5576	6697	6701	8154	8428	8768	89/8	8869	9417	10386	11155	11688	27	238	238	593	1285	2197	2197	2570	2735	2763	3356	3356	4617	4617

Page 415 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

_	 						
Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
5040	18053	30832	0.91	7.0E-92		NT	Homo saplens chromosome 21 segment HS21C081
5333	18439	31191	29.9	7.0E-92	-92 AA446206.1	EST HUMAN	zw66d12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781175 5
1591	14823		1.08	5.0E-92	5.0E-92 BE390882.1	EST HUMAN	601283012F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3805018 5'
9847			0.42	5.0E-92		EST HUMAN	38a7 Human retina cDNA randomly primed sublibrary Homo saplens cDNA
2776		28788		3.0E-92	3.0E-92 BE909714.1	EST_HUMAN	601501242F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902839 5'
5976				3.0E-92		EST_HUMAN	EST91020 Synovial sarcoma Homo sapiens cDNA 5' end símilar to símilar to ribosomal protein S13
11118				3.0E-92		ΙN	Human mRNA for alpha-actinin
11116	24076			3.0E-92	3.0E-92 X15804.1	ΙN	Human mRNA for alpha-actinin
28	l	26047	1.09	2.0E-92	4501898 NT	FN	Homo saplens activin A receptor, type IIB (ACVR2B) mRNA
188	1				11422946 NT	۲	Homo sapiens hypothetical protein dJ462O23.2 (DJ462O23.2), mRNA
180	l		3.9	2.0E	11422946 NT	TN	Homo sapiens hypothetical protein dJ462O23.2 (DJ462O23.2), mRNA
750	13811	26753	1.25	2.0€	-92 BE299190.1	EST_HUMAN	601118337F1 NIH_MGC_17 Homo saplens cDNA clone IMAGE:3028304 5'
750	1	26754	1.25	2.0E-92		EST_HUMAN	601118337F1 NIH_MGC_17 Homo saplens cDNA clone IMAGE:3028304 5'
1727	ĺ		1.4	2.0E-92	2.0E-92 S78653.1	Į.	mrg=mas-related [human, Genomic, 2416 nt]
	1						wk27d07x1 NCL_CGAP_Brn25 Homo saplens cDNA clone IMAGE:2413549 3' similar to TR:Q12844
1953	14976	27976	1.73	2.0E-92	-92 AI818119.1	EST_HUMAN	Q12844 BREAKPOINT, CLUSTER REGION PROTEIN;
1953	14976	27977	1.73	2.0E-92	-92 AI818119.1	EST HUMAN	wk27d07.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2413549 3' similar to TR:Q12844 Q12844 BREAKPOINT CLUSTER REGION PROTEIN ;
2064	L		6.36	2.0E-92	008800	Ί.	Homo sapiens syndecan 4 (amphiglycan, ryudocan) (SDC4) mRNA
2668	L			2.0E-92	6912457 NT	ĮΝ	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
3627	L	29582		2.0E-92		TN	Homo sapiens chromosome 21 unknown mRNA
3627	16670		1.17	2.0E-92	2.0E-92 AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
3698	18741	29654	5.32	2.0E-92	5803180 NT	FZ	Homo sapiens stress-induced-phosphoprotein 1 (Hsp70/Hsp90-organizing protein) (STIP1), mRNA
4318	1	30231	1.4	2.0E-92		TN	Human endogenous retroviral DNA (4-1), complete retroviral segment
5029	1		2.37	2.0E-92	2.0E-92 AL040437.1	EST_HUMAN	DKFZp434C0414_r1 434 (synonym: htes3) Homo saplens cDNA clone DKFZp434C0414 5'
5853	18944	32129	0.53	2.0E-92		NT	Homo sepiens P-glycoprotein (mdr1) mRNA, complete cds
				l		!!	Homo sapiens Integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha
6434				2.0E-92	4756	L	polypeptide) (TI CAL) mKNA
8929		33104		2.0E-92	-	N	Homo sapiens mRNA for KIAA1068 protein, partial cds
7701	20659		0.81	2.0E-92	2.0E-92 U67780.1	NT	Human NPY Y1-like receptor pseudogene mRNA, complete cds
7730	20659		17.0	2.0E-92		NT	Human NPY Y1-like receptor pseudogene mRNA, complete cds
9207	ĺĺ	35604	1.91	2.0E-92	2.0E-92 AW340174.1	EST_HUMAN	hd02h02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2208371 3' similar to TR:O02711 O02711 PRO-POL-DUTPASE POLYPROTEIN ;

Page 416 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exon Probes Expressed in Bone Marrow	ORF SEQ . Expression (Top) Hit Acession Database ID NO: Signal BLAST E No. Source Signal Value	37694 4.68 2.0E-92 11434900 NT Homo sepiens thyroid stimulating hormone receptor (TSHR), mRNA	2.0E-92 5803103 NT	AB029016.1 NT	28684 2.96 2.0E-92 6912457   Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA	1.77 1.0E-92 R78078.1 EST_HUMAN	1.77 1.0E-92 R78078.1   EST_HUMAN	34.86 1.0E-92 4506668 NT	34974 0.77 1.0E-92 BE439625.1   EST_HUMAN   HTM1-288F HTM1 Homo sapiens oDNA	1 OE-92 A1380356 1 FST HI IMAN MFR17 reportitive element:    1 OE-92 A1380356 1 FST HI IMAN MFR17 reportitive element:   1 OE-	NAMOR TO SECOND AS		2.77 9.0E-93 AU121681.1 EST HUMAN	11.43 9.0E-93 AA316723.1 EST_HUMAN protein L29	Homo sepiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively soliced	9.0E-93/BE388571.1 EST HUMAN	35.01 9.0E-93 11418526 NT	8.0E-93 AW014042.1 EST_HUMAN	0.52 8.0E-93 AW014042.1 EST_HUMAN	3.82 8.0E-93 BF0363.1 EST_HUMAN	9.16 7.0E-93 AF231919.1 NT	1.56 6.0E-93 11526176 NT	0.59 6.0E-93	0.59	0.99 6.0E-93 AB033093.1	1.14 6.0E-93 AF095771.1	3.77 5.0E-93 AB014511.1 NT	4.78 5.0E-93 A/674184.1 EST HUMAN	5.0E-93 A1674184.1   EST_HUMAN	1.02 5.0E-93 AL 163201.2 NT Hamo saplens chromosome 21 segment HS21C001
-	ORF SEQ ID NO:	37594	37864	31773	28684	27890	27891	28122	34974	35927	77000	35028	28083			29584		32913	32914	33079	26268	29063	32391	32392	33186	33338	27385	27408	27409	
	Exan SEQ ID NO:	L		25370	15665		14892	15104	21558	22482	ł	22482		15077	15652	16671	24838							19175	19891	20035		ı		14504
	Probe SEQ ID NO:	11112	11389	12716	12983	1867	1867	2087	8590	9519		0 77 0	2044	2058	2665	3628	11959	6585	6585	6744	246	3091	9609	9609	6838	7101	1381	1406	1406	1471

Page 417 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

10/06 29022 9.21 5.0E-99   PEGORGSU.1 EST HUMAN   10/08   29623 9.21 3.0E-93   BFG90GSU.1 EST HUMAN   47200			Sign Sign Sign Sign Sign Sign Sign Sign		Top Hit Acession No. No. No. X04201.1 M22878.1 AF045555.1 AF045555.1 AF07736.1 AA459933.1 AA459933.1 AA459933.1 AA459933.1 T0577.1 T06396 AF047677.1 T4884.1 AV692051.1 AV692051.1 AV692051.1 AV692051.1 AV692051.1	Top Hit Databese Source Source T_HUMAN	Top Hit Describor  Human skeledal muscle 1,3 kb mRNA for tropomyosin Human skeledal muscle 1,3 kb mRNA for tropomyosin Human scheledal muscle 1,3 kb mRNA for tropomyosin Human scheledal muscle 1,3 kb mRNA for tropomyosin Human scheledal product Herno septens wbezn1 (WBSCR) gene, complete cde Homo septens protein florscaphilia homolog 2 (chapsyn-110) (DLG2) mRNA Homo septens protein florscaphilia) homolog 2 (chapsyn-110) (DLG2) mRNA Homo septens glarma-glulamytausferase 1 (GGT1), mRNA Homo septens glarma-glulamytausferase 1 (GGT1), mRNA Homo septens glarma-glulamytausferase 1 (GGT1), mRNA Homo septens glarma-glulamytausferase 1 (GGT1), mRNA Homo septens glarma-glulamytausferase 1 (GGT1), mRNA Homo septens glarma-glulamytausferase 1 (GGT1), mRNA Homo septens peacedillo (zeberfish) homolog 1, containing BRC1 domain (PES1), mRNA Homo septens peacedillo (zeberfish) homolog 1, containing BRC1 domain (PES1), mRNA Homo septens peacedillo (zeberfish) homolog 1, containing BRC1 domain (PES1), mRNA Homo septens peacedillo (zeberfish) homolog 1, containing BRC1 domain (PES1), mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo septens interleukin 18 receptor 1 (IRNGR1) mRNA Homo s
4 4 20 00 NEODEODS 4 NIT				3,0E-93			502246554F1 NIN_MOC_62 Home sapiens cond kidne IMAGE:4332036 6
1,282 S.UE-931A-723880.1	į.	L		3.05-93	T	Г	Homo sapiens tensin mRNA, complete cds

Page 418 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

-		Π	П			П	Г			Г	Г	Γ	Γ	Г		Г		Γ	Γ	Γ			П	2			П		1	Г		_1
Oligie Extil Flobes Expressed in Doile Mariow	Top Hit Descriptor	In29g03.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2169076 3'	In 29g03.x1 NCI_CGAP_Brn 25 Homo sapiens cDNA clone IMAGE: 2169076 3'	Homo sapiens GCN5 (general control of amino-acid synthesis, yeast, homolog)-like 2 (GCN5L2), mRNA	wb02d05x1 NCI_CGAP_GC6 Homo saplens cDNA clone IMAGE:2304489 3'	Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds	Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds	Homo saplens chromosome 21 segment HS21C085	Homo sapiens chromosome 21 segment HS21C085	Human Cik-associated RS cyclophilin CARS-Cyp mRNA, complete ods	601117586F1 NIH_MGC_16 Hamo sapiens cDNA clone IMAGE:3358220 5'	EST376458 MAGE resequences, MAGH Homo saplens cDNA	Homo sapiens deafness, autosomal dominant 5 (DFNA5), mRNA	QV3-HT0513-290300-126-h04 HT0513 Homo saplens cDNA	Homo sapiens hypothetical protein (LOC51318), mRNA	HSU74313 Human chromosome 14 Homo sapiens cDNA clone 1-86	UI-HF-BN0-aks-g-09-0-UI.rl NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078329 5'	228c10.s1 Scares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503346 3'	Homo sapiens CYP17 gene, 5' end	601458531F1 NIH_MGC_66 Homo saplens cDNA done IMAGE:3862086 5'	Homo saplens CTR1 pseudogene	Homo saplens CTR1 pseudogene	Homo saplens hypothetical protein (DJ328E19.C1.1), mRNA	oy84b08.x1 NCI_CGAP_CLL1 Homo sepiens cDNA clone IMAGE:1672503 3' similar to TR:Q62384 Q62384 ZinC FINGER PROTEIN.;	Homo sapiens DNA for amyloid precursor protein, complete cds	Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA	Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA	Homo saplens long chain polyunsaturated fatty acid elongation enzyme (HELO1) mRNA, complete cds	Homo sapiens MHC class 1 region	601177686F1 NIH_MGC_17 Homo saplens oDNA clone IMAGE:3532965 5	601177686F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532965 5'	Homo sapiens DNA for amyloid precursor protein, complete cds
Second Hox	Top Hit Database Source	EST_HUMAN	EST_HUMAN	ĘŊ	EST_HUMAN	LN	TN	TN	NT	ΙN	EST_HUMAN	EST_HUMAN	Į.	59.1 EST_HUMAN	LN	EST_HUMAN	EST_HUMAN	EST HUMAN	NT	EST_HUMAN	NT	NT	NT	EST HUMAN	LZ LZ	FN	NT	NT	LN	EST_HUMAN	EST_HUMAN	닐
alifile	Top Hit Acession No.	-93 A1553853.1	3.0E-93 A1553853.1	11426182 NT	E-93 A1824829.1		Г		2.0E-93 AL163285.2			AW964385.1	4758153 NT	2.0E-93 BF351459.1	11430039	J74313.1	1W 502002.1	2.0E-93 AA126735.1	-41825.1	2.0E-93 BF035327.1	E-93 AF238997.1	E-93 AF238997.1	7657016 NT	1.0E-93 A/146755.1	387675.1	F923270 NT	8923270 NT	E-93 AF231981.1	E-93 AF055066.1	E-93 BE 297369.1	E-93 BE297369.1	E-93 D87675.1
	Most Similar (Top) Hit BLAST E Value	3.0E-93 /	3.0E-93 /	3.0E-93	3.0E-93	2.0E-93 /	2.0E-93	2.0E-93(/	2.0E-93/	2.0E-931	2.0E-93	2.0E-93 /	2.0E-93	2.0E-93 E	2.0E-93	2.0E-93	2.0E-93 /	2.0E-93 /	2.0E-93	2.0E-93	1.0E-93	1.0E-93	1.0E-93	1.0E-93	1.0E-83 D87675.	1.0E-93	1.0E-93	1.0E-93	1.0E-93 /	1.0E-93	1.0E-93	1.0E-93 [
	Expression Signal	0.56	0.56	1.55	3.04	8.05	8.05	12.88	8.91	1.15	2.03	5.04	0.78	0.63	1.08	0.7	1.06	3.14	2.69	3.49	1.82	1.82	16.6	5.09	4.11	8.85	8.85	1.27	9.52	2.05	2.05	2.18
	ORF SEQ ID NO:	32161	32162	33051	37637	26219	26220	26340	26340	28173	28523	31502	31531		31993	32006					26143	26144	26510	26583	26887	27237	27238	28375				28928
	Exon SEQ ID NO:	18970	18970	19771	24112	13293	13293	13415	13415	ĺ		18591	18602	18717	18814	l	19894	25251	25303	25461	13219	13219	13590	13669	13929		14277	15354	1	14334	li	16003
	Probe SEQ ID NO:	5881	5881	6715	11152	192	192	323	324	2140	2494	5491	5502	5621	5720	5734	6841	12520	12601	12853	103	103	519	602	873	1241	1241	2344	2471	2833	2833	2945

Page 419 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

	<del></del> -	_	_	_	_		_	_	_	-	_			_	_	,_	_	_	_	r—	_	_						J				
Top Hit Descriptor	Homo sapiens long chain polyungaturated fatty acid elongation enzyme (HELO1) mRNA, complete ods	Hamo sapiens chromosome 21 segment HS21 C084	Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E	Homo saplens glucocorticoid receptor (GRL) gene, Intron D, exon 5, and intron E	Homo sapiens candidate taste receptor T2R14 gene, complete cds	Homo sapiens neurofibromín 1 (neurofibromatosis, von Recklinghausen disease, Watson disease) (NF1)	Homo saniens KIAA0672 gene product (KIAA0672) mRNA	Homo sapiens protein kingse C, beta 1 (PRKCB1), mRNA	Human mRNA for NF1 N-(soform-exon11, complete cds	Homo sapiens mRNA for KIAA1411 protein, partial cds	H.sapiens mRNA for MEMD protein	Homo sapiens protein kinase inhibitor gamma (PKIG) mRNA, complete cds	Homo sapiens mRNA for KIAA1011 protein, partial cds	Homo sapiens mRNA for KIAA1011 protein, partial cds	Homo saplens mRNA for KIAA1485 protein, partial cds	Homo sapiens Trio isoform mRNA, complete cds	Human PreA4 gene for Alzhelmer's disease A4 amyloid protain precursor (exon 9)	Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9)	Novel human gene mapping to chomosome 13, similar to rat RhoGAP	Homo sapiens ryanodine receptor 3 (RYR3), mRNA	Homo sapians GGT1 gane, exon 1	Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA	Homo saplens chromosome 21 segment HS21C009	Homo sapiens transcription enhancer factor-5 mRNA, complete cds	Homo saplens mRNA for KIAA0812 protein, partial cds	Homo sapiens mRNA for KIAA0612 protein, partial cds	zg87g06.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:4095943'	ot83d05.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1623369 3'	602042163F1 NCI_CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4180023 5	Homo saplens adenylate kinase 2 (AK2), mRNA	Homo sapiens adenylate kinase 2 (AK2), mRNA	yd88b04.s1 Soares fetal liver splean 1NFLS Homo sepiens cDNA clone IMAGE:116239.3'
Top Hit Database Source	F	TN	LN	N	۲	Ŀ	Z	LN LN	LN LN	NT	N	LN	LN.	LN	FN	FZ	NT		TN	TN			L	M	님	TN	EST_HUMAN	EST HUMAN	EST_HUMAN			EST_HUMAN
Top Hit Acession No.	-93 AF231981.1	5		Г	1.0E-63 AF227138.1	Tit Copperator	TN 1207 1007	11431590 NT	-93 D42072.1			-	-93 AB023228.1		1.0E-93 AB040918.1	5.1	-93 X13474.1		1.0E-93 AL049801.1	11433646 NT	1.0E-93 AJ230125.1	11417856 NT				5.0E-94 AB014512.1		-94 Al015800.1	-94 BF529115.1	11423962 NT	11423962 NT	-94 T89398.1
Most Similar (Top) Hit BLAST E Value	1.0E-93	1.0E-93 /	1.0E-93 U78509.1	1.0E-93 (	1.0E-93 /	00 00 7	101-83	1.0E-93	1.0E-93 [	1.0E-93/	1.0E-93	1.0E-93	1.0E-93 /	1.0E-93 /	1.0E-93/	1.0E-93/	1.0E-93)	1.0E-93	1.0E-93 /	1.0E-93	1.0E-93 /	1.0E-93	8.0E-94	6.0E-94	5.0E-94	5.0E-94	5.0E-94	5.0E-94	5.0E-94	5.0E-94	5.0E-94	5.0E-94 T
Expression Signal	1.3	1.99	1.66	1.66	1.02	000	0.03	2.08	3.07	1.97	1.12	1.29	0.47	0.47	1.85	1.04	4.08	4.08	0.71	0.53	2.11	3.14	1.25	2.15	3.23	3.23	3.06	1.34	0.82	2.81	2.81	6.07
ORF SEQ (D NO:		30373		31908	32135	90000		33507	33785	34987	35274	35387	35775			34537	36333			36924				29937	31454	31455	32472	33562	35376	37795	37796	31318
Exon SEQ ID NO:	16284	17486		18742	18949	40405	19392	20184	ı	l I	21854	21962				21134	1	1		23426	25405	26457			1	18543			21952		24268	25965
Probe SEQ ID NO:	3229	4460	5646	5646	5859	6000	6321	6969	7462	8603	8888	9668	9379	9379	9807	9811	9946	9946	10083	10504	12763	12847	10956	3986	5441	1444	6166	7206	9868	11318	11318	12497
				_			_		_		٠		_	_	_		_	_	_	_		_	_	_	_			_	_			_

Page 420 of 546 Table 4

Page 421 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	AV725992 HTC Homo sapiens cDNA clone HTCBEF05 5'	Homo sapiens chromosome 21 segment HS21 C004	Homo saplens chromosome 21 segment HS21 C004	Homo sapiens paired box gene 5 (B-cell lineage specific activator protein) (PAX5), mRNA	601468748F1 NIH MGC_67 Hamo sapiens cDNA clone IMAGE:3872099 5'	Homo sapiens IL-1 receptor antagonist IL-1Ra (IL-1RN) gene, alternatively spliced forms, complete cds	ap22e02.x1 Schiller oligodendroglioma Homo sapiens cDNA clone IMAGE:1956122 3' similar to TR:Q62845 Q62845 NEURAL CELL ADHESION PROTEIN BIG-2 PRECURSOR.	Homo saplens KIAA0164 gene product (KIAA0164), mRNA	601175762F1 NIH_MGC_17 Home sapiens cDNA clone IMAGE:3531038 5'	601175762F1 NIH_MGC_17 Homo saplens cDNA clone IMAGE:3531038 5'	Homo saplens TNF-alpha stimulated ABC protein (ABC50) mRNA, complets cds	Homo sapiens KIAA0255 gene product (KIAA0255), mRNÁ	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA	M.musculus glyT1 gene (exons 1c and 2)	M.musculus glyT1 gene (exons 1c and 2)	Homo saplens progressive ankylosis-like protein (ANK) mRNA, complete cds	we09e04.X1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2340606 3' similar to gb:K00558 TUBULIN ALPHA-1 CHAIN (HUMAN);	we09e04.x1 NCI_CGAP_Lu24 Horno sapiens cDNA clone IMAGE:2340808 3' similar to gb:K00558	I OBOLIN ALTHA-1 CHAIN (HOWAIN);	Homo sapiens KIAA0193 gene product (KIAA0193), mKNA	Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA	Homo saplens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA	Homo saplens proline dehydrogenase (proline oxidase) (PRODH) mRNA	Homo sapiens mRNA for KIAA1395 protein, partial cds	Homo sapiens early growth response 2 (Krox-20 (Drosophila) homolog) (EGR2), mRNA	Homo sapiens HOF-binding transcription factor Zhangfel (ZF), mRNA	zu84b01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:744649 3' sImilar to contains L1.t1 L1 repetitive element;
Top Hit Database Source	EST_HUMAN /	H LN			EST_HUMAN 6	± LN		11418871 NT	Γ	EST_HUMAN 6	Г					+l LN	EST HUMAN		HOMAN								1 LN			EST_HUMAN r
Top Hit Acession No.	-94 AV725992.1		-94 AL163204.2	11428710 NT	-94 BE780478.1	-94 U65590.1	XI272244.1	-94 11418871	-94 BE295714.1	-94 BE295714.1	-95 AF027302.1	7662027 NT	7662027 NT	-95 X82569.1		-95 AF274753.1	-95 A1700998.1		-95 AI / 00998.1	11419376 NT	11426529 NT	11426529 NT	-95 AF032897.1	11420944 NT	11420944 NT	5174644 NT	E-95 AB037816.1	9845523 NT	10864024 NT	-95 AA629056.1
Most Similar (Top) Hit BLAST E Value	1.0E-94 /	1.0E-94/	1.0E-94 /	1.0E-94	1.0E-94	1.0E-94 l	1.0E-94	1.0E-94	1.0E-94	1.0E-94	9.0E-95	9.0E-95	9.0E-96	9.0E-95	9.0E-95	9.0E-95	8.0E-95		8.0E-95	8.0E-95	8.0E-95	8.0E-95	8.0E-95	8.0E-95	8.0E-95	8.0E-96	8.0E-95/	8.0E-95	8.0E-95	8.0E-95
Expression Signal	0.56	99.0	0.56	2.57	1.93	2.77	1.94	3.39	1.43	1.31	1.3	1.19	1.19	1.38	1.38	1.61	1.82	,	1.82	0.83	1.55	1.55	2.02	1.97	1.97	2.67	3.08	8.0	2.21	29.02
ORF SEQ ID NO:		34833		29098	36547	37881	38151		26182	26182		29140	29141	31489		34977	30482					33774	34924	36199		36619		37008	38279	
Exan SEQ ID NO:	19725	21419	21419	22615	23072	24349	24583	24923	13253	13253	14508	16225	16226	18679	18579	21563	17590		1/290	20112	20418	20418	21507	22748	22748	23132	23163	23517	24698	25442
Probe SEQ ID NO:	8999	8450	8450	9611	10146	11405	11646	12050	12816	12887	1473	3170	3170	5479	6479	8595	4567		4567	7136	7452	7452	8539	9720	9720	10207	10238	10595	11813	12820

Page 422 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

ıarrow	Top Hit Descriptor	Homo sapiens DNA for amyloid precursor protein, complete cds	Homo sapiens DNA for amyloid precursor protein, complete cds	Homo sapiens Ly-6-like protein (CD59) mRNA, complete cds	Homo sapiens chromosome 21 segment HS21C046	Human homeobox protein (PHOX1) mRNA, 3' end	sapiens cDNA	EST362704 MAGE resequences, MAGA Homo sapiens cDNA	EST362704 MAGE resequences, MAGA Homo sapiens cDNA	RC6-FN0114-090800-011-B07 FN0114 Homo sapiens cDNA	602071146F1 NCI_CGAP_Brn64 Homo saplens cDNA clone IMAGE:4214147 5'	Homo saplens dedicator of cyto-kinesis 1 (DOCK1) mRNA	EST370191 MAGE resequences, MAGE Homo sapiens cDNA	EST370191 MAGE resequences, MAGE Homo sapiens cDNA	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA	Homo saplens KIAA0763 gene product (KIAA0763), mRNA	601845212F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4070451 5'	Hamo sapiens KIAA0255 gene product (KIAA0255), mRNA	Homo saplens KIAA0255 gene product (KIAA0255), mRNA	Homo sapiens tissue inhibitor of metalloproteinase 3 (Sorsby fundus dystrophy, pseudoinflammatory) (TIMP3) mRNA	601312161F1 NIH_MGC_44 Home sapiens cDNA done IMAGE:3658862 5	Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA	Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1)		Homo sapiens glycine cleavage system protein H (aminomethyl carrier) (GCSH) mRNA	Homo sapiens Usurpin-gamma mRNA, complete cds	Homo saplens unconventional myosin-15 (LOC51168), mRNA	Homo sapiens unconventional myosin-15 (LOC51168), mRNA	Homo sapiens mRNA for KIAA1386 protein, partial cds	qm01c02.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1880546 3' similar to WP:T23G7.4 CE03705;	Homo sapiens hypothetical protein (HS322B1A), mRNA	Homo sapiens KIAA0187 gene product (KIAA0187), mRNA
Single Exon Probes Expressed in Bone Marrow		Homo sapiens DNA for a	Homo sapiens DNA for a	Homo sapiens Ly-6-like p	Homo sapiens chromoso	Human homeobox proteir	HTM1-288F HTM1 Homo sapiens cDNA	EST362704 MAGE resex	EST362704 MAGE reser	RC6-FN0114-090800-01	602071146F1 NCI_CGA	Homo sapiens dedicator	EST370191 MAGE rese	EST370191 MAGE reserven	Homo sapiens KIAA0763	Homo saplens KIAA0763	601845212F1 NIH_MGC	Homo sapiens KIAA0255	Homo saplens KIAA0255	Homo sapiens tissue inhi mRNA	601312161F1 NIH MGC	Homo sapiens G protein-	Homo saplens G protein-	Homo sapiens glutathion	genes, camplete cds	Homo sapiens glycine cle	Homo sapiens Usurpin-g	Homo sapiens unconven	Homo sapiens unconven	Homo sapiens mRNA for	qm01c02.x1 Soares_Nht CE03705;	Homo sapiens hypothetic	Homo sapiens KIAA0187
secould nox	Top Hit Database Source	LN	TN	LΖ	LN L	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	ΝΤ	EST_HUMAN	EST_HUMAN	NT	FN	EST_HUMAN	N	ΤN	LN	EST_HUMAN	۲	LΝ		TN	TN	LN	IN	ΤN	NT	EST HUMAN	LN	TN
Single	Top Hit Acession No.	7.0E-95 D87675.1	J87675.1	M95708.1	7.0E-95 AL183246.2	7.0E-95 M95929.1	4.0E-95 BE439625.1					2	4W958121.1	4W958121.1	3.0E-95 7662289 NT	7662289 NT	3F213446.1	7662027 NT	2.0E-95 7662027 NT	4507512 NT	2.0E-95 BE393873.1	5453665 NT	5453665 NT		2.0E-95 AF240786.1	4758423 NT	4F015452.1	7705900 NT	2.0E-95 7705900[NT	4B037807.1	A 290264.1	2.0E-95 7657185 NT	7661979 NT
	Most Similar (Top) Hit BLAST E Value	7.0E-95	7.0E-95	7.0E-95 M95708.1	7.0E-95	7.0E-95	4.0E-95	4.0E-95	4.0E-95	4.0E-95	3.0E-95	3.0E-95	3.0E-95	3.0E-95	3.0E-95	3.0E-95	3.0E-95	2.0E-95	2.0E-95	2.05-95	2.0E-95	2.0E-95	2.0E-95		2.0E-95	2.0E-95	2.0E-95	2.0E-95	2.0E-95	2.0E-95	2.0E-95	2.0E-95	2.0E-95
	Expression Signal	6.59	69.9	4.55	1.26	1	0.82	1.93	1.93	1.79	1.61	0.54	-	F	1.75	1.75	0.69	2.18	2.18	2.13	1.36	1.43	1.43		3.35	1.2	2.48	2.93	2.93	0.93	1.09	1.69	2.92
	ORF SEQ ID NO:	26298	26299	30307		30976	35985	38487	38488	38534	31550	32030	33913	33914	36119	36120	36508	27656	27657	27982	27986	28457	28458		28500	28545	29142	29542	29543	29587	29716	30300	30967
	Exan SEQ ID NO:	13371	13371	17422	17469	18100	22534	24890	24890	24938	18617	25644	20554	20554	22663	22663	23030	14683	14683	14980	14983	15440	15440		15477	15523	16226	16622	16622	16674	16805	1	
	Probe SEQ ID NO:	275	275	4394	4443	2090	9572	12013	12013	12065	5517	5757	7593	7593	9710	9710	10104	1651	1651	1958	1961	2433	2433		2473	2520	3171	3577	3577	3631	3763	4388	5077

Page 423 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Detabase Source	Top Hit Descriptor
5557	18654	31598	4.36	2.0E-95	7705764 NT	TN	Homo sapiens CGI-48 protein (LOC51096), mRNA
2557				2.0E-95		L	Homo sapiens CGI-48 protein (LOC51096), mRNA
2829	L	32055	1.22	2.0E-95	11225608 NT	TN	Homo saplens anglotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA
5782				2.0E-95	11225608 NT	LΝ	Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA
289	18917	32101	0.67	2.0E-95	11525883 NT	Þ	Homo sapiens membrane protein, palmitoy/ated 3 (MAGUK p55 subfamily member 3) (MPP3), mRNA
6265	18338		3.71	2.0E-95	Г	LN LN	Human muscle-type phosphofructokhase (PFK-M) gene, exon 7
6592	L		1.01	2.0E-95	2.0E-95 11427182 NT	LZ	Homo saplens transcription factor 2, hepatic; LF-B3; variant hepatic nuclear factor (TOF2), mRNA
6592	1		1.01	2.0E-95	11427182 NT	TN	Homo saplens transcription factor 2, hepatic, LF-B3, variant hepatic nuclear factor (TCF2), mRNA
6722	19778	33057	2.39	2.0E-95		L	Homo saplens cillary dynein heavy chain 9 (DNAH9) mRNA, complete cds
6928	1	33471		2.0E-95	11435773 NT	TN	Homo sapiens huntingtin (Huntington disease) (HD), mRNA
9498				2.0E-95	11421795 NT	Ţ	Homo sapiens ribophorin II (RPN2), mRNA
10747	1 1	37166	0.54	2.0E-95	11434330 NT	LΝ	Homo sapiens KIAA1065 protein (KIAA1065), mRNA
11078	24040			2.0E-95	4757853 NT	LZ	Homo sapiens bone morphogenetic protein receptor, type IA (BMPR1A) mRNA
12011	24888	38484		2.0E-95	7662289 NT	Z-	Homo saplens KIAA0763 gene product (KIAA0763), mRNA
12011	l			2.0E-95	7662289 NT	5	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
	ı				Г		Homo saplens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1)
12587		31782	2.69	2.0E-95		NT	genes, complete cds
12984	25546	31718		2.0E-95	2.0E-95 11418164 NT	<b>5</b>	Homo sapiens adenylosuccinate lyase (ADSL), mRNA
9699	18791	31962	7.21	1.0E-95	E-95 AA284651.1	EST HUMAN	### ### Saeres ovary turnor NbHOT Homo sapiens cDNA clone IMAGE:714007 6' similar to TR:G1067084 G1067084 F55H2.6;
	١.				Γ		2123h04.r1 Soares ovary fumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to
5696	18791	31963	7.21	1.0E-95	1.0E-95 AA284651.1	EST_HUMAN_	TR:G1067084 G1067084 F55H2.6;
7757	L	34079	4.21	1.0E-95		EST_HUMAN	RC6-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA
7757			4.21	1.0E-95		EST_HUMAN	ROS-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA
8536	L	34922	1.58	96-30.6		EST_HUMAN	601437232F1 NIH_MGC_72 Hamo seplens cDNA clone IMAGE:3922423 5'
442	L			8.0E-96	Γ	EST_HUMAN	601497608F1 NIH_MGC_70 Homo saplens cDNA clone IMAGE:3899761 6'
442	15840	26448	1.36	8.0E-96	Г	EST HUMAN	601497608F1 NIH_MGC_70 Homo saplens cDNA clone IMAGE:3899761 5
5589	18685			8.0E-96		EST HUMAN	PMo-L70019-090300-002-d09 L70019 Homo sapiens cDNA
3929			1.08	7.0E-96		エフ	Homo saplens chromosome 21 unknown mRNA
3329	16380		0.64	8.0E-96		NT.	Homo saplens chromosome 21 segment HS21C001
3494	16541	29465	15.12	6.0E-96	E-96 M26873.1	トフ	Human glyceraldehyde-3-phosphate dehydrogenase pseudogene 3'end
5722	18816	31995	0.82	6.0E-96	11422642 NT	5	Homo sapiens slatytransferase 6 (N-acetyliacosaminide alpha 2,3-sialytransferase) (SIAT6), mRNA
	l	١		A			

Page 424 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Excit Flobes Expressed in Doire Mariow	Top Hit Descriptor	Homo saplens KIAÄ0763 gene product (KIAA0763), mRNA	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA	Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA	Homo sapiens mRNA for KIAA1172 protein, partial cds	Homo sapiens mRNA for KIAA1172 protein, partial ods	Homo sapiens mRNA for KIAA1172 protein, partial cds	Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA	Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA	H.saplens DNA for monoamine oxidase type A (7) (partial)	Homo sapiens ALR-like protein mRNA, partial cds	Homo saplens NOD1 protein (NOD1) gene, exons 1, 2, and 3	Homo saplens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5	Homo saplens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA	Homo sapiens mRNA for KIAA0960 protein, partial cds	Homo sapiens mRNA for 14-3-3gamma, complete cds	Human type IV collagenase (CLG4B) gene, exon 5	Human type IV collagenase (CLG4B) gene, exon 5	Homo sapiens KIAA0175 gene product (KIAA0175), mRNA	yr87th12.r1 Soares fetal liver spleen 1NFLS Homo saplens cDNA clone IMAGE:212327 5'	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA	Homo saplens chromosome 21 segment HS21C048	RC3-HT0230-040500-110-g02 HT0230 Homo sapiens cDNA	QV4-GN0120-250900-427-b12 GN0120 Homo sapiens cDNA	QV4-GN0120-250900-427-b12 GN0120 Homo sapiens cDNA	AV689461 GKC Homo sapiens cDNA clone GKCFMD07 5'	2819351.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2819351 5'	Human endogenous retrovirus type K (HERV-K), gag, pol and env genes	EST367124 MAGE resequences, MAGC Homo saplens cDNA	EST367124 MAGE resequences, MAGC Homo seplens cDNA	Human hepatocyte growth factor gene, exon 1	Human hepatocyte growth factor gene, exon 1	Homo saplens transient receptor potential channel 5 (TRPC5), mRNA
YOU LIONS TO	Top Hit Database Source				NT		TN TN				NT H	H.	. TN			I	Z L		NT TN		EST_HUMAN y		TN TN	EST_HUMAN  F			EST_HUMAN A	T_HUMAN	IN I	EST_HUMAN E	T_HUMAN			
J Biglio	Top Hit Acession No.	7662289 NT	7662289 NT	8923939 NT			5.0E-96 AB032998.1	11416767 NT	6912735 NT		0.1		5.0E-96 AJ277557.1	11424399 NT	11424399 NT	5.0E-96 AB023177.1				7661973 NT		4503098 NT	2.0E-96 AL163248.2					0.1						6912735 NT
	Most Similar (Top) Hit BLAST E Value	6.0E-96	6.0E-96	6.0E-96	5.0E-96	5.0E-96	5.0E-96	5.0E-96	5.0E-96	5.0E-96 X60812.1	5.0E-96 ₽	5.0E-96 A	5.0E-96 A	5.0E-96	5.0E-96	5.0E-96 A	5.0E-96 A	5.0E-96 M68347.1	5.0E-96 N	5.0E-96 76	3.0E-96 H68656.1	2.0E-96	2.0E-96 ₽	2.0E-96 E	2.0E-96	2.0 <b>E-9</b> 6 E	2.0E-98	2.0E-96	1.0E-96 Y18890.1	1.0E-96	1.0E-95	1.0E-96 M75967.1	1.0E-96 M75967.1	1.0E-96
	Expression Signal	2.59	2.59	2.78	3.08	3.47	3.47	1.23	0.71	0.93	0.93	1.15	0.5	4.02	4.02	0.78	0.7	6.11	6.11	1.51	7.1	4.65	1.12	1.39	0.58	0.58	5.83	3.08	2.47	2.35	2.35	1.04	1.04	1.15
	ORF SEQ ID NO:	38335	38336	38390	26336	26855	26856		29013		31113	33148	33219	33496	33497	33576	34081								34017	34018			26663	27809		28274	28275	31234
	SEQ ID	1		24799				1	)	17956	18241	19861	19923	20173	,	20241	20711	21412	L	<u></u>	_	L	13809	ŀ		1		25102	١.	L	L.	·		18390
	Probe SEQ ID NO:	11872	11872	11918	320	843	843	2626	3039	4940	5233	6807	6870	6949	6949	7219	7758	8443	8443	12076	4219	415	748	4790	7696	7696	9332	12285	672	1796	1796	2237	2237	7158

Page 425 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

							The second secon
Probe SEO ID NO:	SEQ (D NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
7250	19985	33283		1.0E-96	6912455 NT	TN	Homo sapiens guanine nucleditde exchange factor for Rap1 (KIAA0277), mRNA
8555	21523	34941	1.35	1.0E-96	7661803 NT	INT	Homo sapiens HSPC144 protein (HSPC144), mRNA
8555	21523	34842		1.0E-96	7661803 NT	FN	Homo sapiens HSPC144 protein (HSPC144), mRNA
9906	22032	35455	24.51	1.0E-96	11419429 NT		Homo sapiens similar to ectonucleotide pyrophosphatass/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA
9202	22168	35598	2.24	1.0E-96	96 AF274863.1	LΝ	Homo sapiens secretory pathway component Sec31B-1 mRNA, atternatively spliced, complete cds
10520	23442	36939	0.91	1.0E-96		LN	Homo sapiens mRNA for KIAA1290 protein, partial cds
10520	23442	36940	16.0	1.0E-96	AB033116.1	ĹΝ	Homo sapiens mRNA for KJAA1290 protein, partial cds
12272	18332	31169		1.0E-96	4826863 NT	LN	Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA
12272	18332	31170	1.59	1.0E-96	4826863 NT	NT	Homo sapiens neuronal cell adheslon molecule (NRCAM) mRNA
3338	16389	28310		6.0E-97	6.0E-97 BF245240.1	EST_HUMAN	601863712F1 NIH_MGC_67 Homo saplens cDNA clone IMAGE:4081202 5'
7806	20756			6.0E-97	97 BE141849.1	EST_HUMAN	L5-HT0117-011099-004-D07 HT0117 Homo sapiens cDNA
9286	22252	35682		6.0E-97	-97 BE898012.1		601440317F1 NIH_MGC_72 Homo saplens cDNA clone IMAGE:3925133 5
9286	22252	35683		6.0E-97	-97 BE898012.1		601440317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925133 5'
6360	23879	37391	0.71	6.0E-97	6.0E-97 AA320332.1	EST_HUMAN	EST22672 Adipose tissue, white II Homo saplens cDNA 5' end
10959	23879	37392	0.71	6.0E-97	97 AA320332.1	EST_HUMAN	EST22672 Adipose tissue, white II Homo saplens cDNA 6' end
11734	24620	38198		6.0E-97	97 X15804.1	TN	Human mRNA for alpha-actinin
8348	21317	34732	2.27	5.0E-97	-97 AL043314.2	EST_HUMAN	DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clane DKFZp434N0323 5
8482	21450	34868	13.95	5.DE-97	97 AA418026.1	EST HUMAN	zv87et2.s1 Soares_NhHMPu_S1 Homo saplens cDNA clone IMAGE:787758 3' similar to TR:G1304125 G1304125 PMS4 MRNA ;
10034	22961	36429		5.0E-97	97 BF154912.1	EST_HUMAN	RC0-BT0812-250900-032-a09 BT0812 Homo seplens cDNA
11873	24755	38337	1.75	5.0E-97	-97 BE148597.1	EST HUMAN	MR0-HT0241-150500-010-b02 HT0241 Homo sapiens cDNA
11873	24755	38338	1.75	5.0E-97	97 BE148597.1	EST_HUMAN	MR0-HT0241-150500-010-b02 HT0241 Homo sapiens cDNA
938	13991	26943	2.4	4.0E-97	97 BE004436.1	EST_HUMAN	CM0-8N0106-170300-293-408 BN0108 Homo saplens cDNA
948	14001	26953		4.0E-97	-97 AB030176.1	TN	Homo saplens PAD-H19 mRNA for peptidy/arginine deiminase type il, complete cds
948	14001	26954	1.87	4.0E-97	-97 AB030176.1	LΝ	Homo sapiens PAD-H19 mRNA for peptidy/arginine delminase type II, complete cds
1925	14949	27945		4.0E-97	5453572 NT	LN	Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA
5645	18741	31906	99'0	4.0E-97	4557326 NT	NT	Homo saplens apolipoprotein H (beta-2-glycoprotein I) (APOH) mRNA
9989	19041	32239	0.52	4.0E-97		Ŋ	Human N-methyl-D-aspartate receptor modulatory subunit 2A (hNR2A) mRNA, complete cds
5956	19041	32240	0.52	4.0E-97		NT	Human N-methyl-D-aspartate receptor modulatory subunit 2A (hNR2A) mRNA, complete cds
6997	20123	33437		4.0E-97	.97 Y11339.2	NT	Homo saplens mRNA for GalNAc alpha-2, 8-statytransferase I, long form
6997	20123	33438		4.0E-97	Y11339.2	μ	Homo sapiens mRNA for GalNAc alpha-2, 6-slalytransferase I, long form
7217	20239	33573	1.35	4.0E-97	7710125 NT	LN.	Homo saplens ligase (II, DNA, ATP-dependent (LIG3), transcript variant alpha, mRNA

Page 426 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

ſ				Т	1	٦	$\neg$	$\neg$	-	1	٦							٦	7	T	Т	Т	T	I	1	Ţ	T	丁	1	$\neg$	Т	٦
Single EXUIT FLODES EXPLESSED III DOILE WAILOW	Top Hit Descriptor	Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA	Homo sapiens laminin, alpha 2 (merosin, congenital muscular dystrophy) (LAMA2) mRNA	Homo sapiens v-src avian sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (SRC), mRNA	Homo saplens N-myc (and STAT) Interactor (NMI), mRNA	Homo sapiens cytochrome P450, subfamily IVB, polypeptide 1 (CYP4B1), mRNA	Homo sapiens mRNA for KIAA0594 protein, partial cds	Homo sapiens mRNA for KIAA0594 protein, partial cds	Homo sapiens N-myc (and STAT) interactor (NMI), mRNA	Homo saplens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA	Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA	Homo sapiens G-2 and S-phase expressed 1 (GTSE1), mRNA	Homo sapiens mRNA for KIAA1172 protein, partial cds	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-il, Alzheimer disease) (APP), mRNA	Homo sapiens N-myc (and STAT) interactor (NMI), mRNA	Human beta-prime-adaptin (BAM22) gene, exon 7	Human alpha-1-antitrypsin gene (S variant), complete cds	Homo saplens pericentrin (PCNT) mRNA	Homo sapiens eukaiyotto translation elongation factor 1 apha 1 (EEF1A1) mRNA	601339520F1 NIH_MGC_53 Homo sepiens cDNA clone IMAGE:3681821 5	RC0-HT0258-211199-011-g05 HT0258 Homo sapiens cDNA	RC0-HT0258-211199-011-g05 HT0258 Homo saplens cDNA	yf38c08.s1 Soares fetal liver spleen 1NFLS Homo saplens cDNA clone IMAGE:129134 3'	Homo sapiens KIAA0649 gene product (KIAA0649), mRNA	Homo sapiens KIAA0649 gene product (KIAA0649), mRNA	hk29g02.s1 NCI_CGAP_Co11 Homo sapiens cDNA clone IMAGE:1014962.3'	Homo saplens ribosomal protein S15 (RPS15), mRNA	Homo saplens ribosomal protein S15 (RPS15), mRNA	PM4-BT0724-010400-008-a12 BT0724 Homo sapiens cDNA	Homo saplens cat eye syndrome critical region gene 1 (CECR1), mRNA	Homo sapiens CLUN12 gene for claudin-12
Second Lines	Top Hit Database Source	Ę	FN	TN	IN	NT	NT	. LN	LN	TN	LN	IN	TN	NT	ΤN	LΝ	N	TN	NT	۲	EST HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	N <sub>T</sub>	1	EST_HUMAN	NT	NT	EST_HUMAN	LN	LZ.
Sirigie	Top Hit Acession No.	11422155 NT	4557708 NT	11421793 NT	11431060 NT	11423233 NT	4.0E-97 AB011166.1	4.0E-97 AB011166.1	11431060 NT	11863122 NT	11863122 NT	11418318 NT	3.0E-97 AB032998.1	4502166 NT	4502166 NT	4758813 NT	J36255.1	(02212.1	5174478 NT	4503470 NT			6.1	97 R10887.1	11427757 NT	11427757 NT	97 AA553761.1	11426272 NT	11426272 NT	98 BE090973.1	8393092 NT	98 AJ250713.1
	Most Similar (Top) Hit BLAST E Value	4.0E-97	4.0E-97	4.0E-97	4.0E-97	4.0E-97	4.0E-97	4.0E-97	4.0E-97	4.0E-97	4.0E-97	4.0E-97	3.0E-97	3.0E-97	3.0E-97	3.0E-97	3.0E-97 U36255.1	3.0E-97 K02212.1	3.0E-97	1.0E-97	1.0E-97	1.0E-97	1.0E-97	1.0E-97	1.0E-97	1.0E-97	1.0E-97	1.0E-97	1.0E-97	9.0E-98	9.0E-98	9.0E-98
	Expression Signal	0.94	99.0	1.62	0.49	0.78	1.36	1.36	0.79	2.15	2.15	7.99	1.01	2.71	2.71	1.72	1.57	2.22	1.01	18.15	2.5	0.51	0.51	1.46	3.07	3.07	1.67	35.59	35.59			0.63
	ORF SEQ ID NO:	33305	34860	35092			38056	36057	37226	37991	37992		26266	26889	26890	27446	28470	29158	29249	30730	32892	34525		36527	37549	37550	38142	37472	37473	26914		
	Exon SEQ ID NO:	20005	21443	21669	21892	21933	22607	22607	23724	24441	24441	25216	13341	13931	13931	15868	15825	16240	16328	17832	19627	21122				ı	24576	23951	23951	13957		19501
	Probe SEQ ID NO:	7270	8474	1078	8926	8967	9603	9603	10803	11498	11498	12467	243	875	875	1435	2445	3185	3274	4815	6567	9799	9799	10122	11062	11062	11639	11796	11796	902	1281	6435

Page 427 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

<u></u>	RO	Express Signa	Most Similar (Top) Hit BLAST E Value 9.0E-98 9.0E-98 9.0E-98 9.0E-98 9.0E-98 9.0E-98 9.0E-98 9.0E-98	Top Hit Acession No. 7861871 7861871 786989.1 705989.1 71321580 78037786.1 74507726.1 74507726.1 74507726.1 74503722.1 746023222.1	Top Hit Database Source Source NT NT NT NT NT NT NT NT NT NT NT NT NT	Top Hit Descriptor  Homo saplens leucy-RNA synthetase, mitochondrial (KIAA0028), mRNA  Homo saplens a kinase (PRKA) anchor protein (yotlao) 9 (AKAP9), mRNA  Homo saplens death-essociated protein (bAP), mRNA  Homo saplens death-essociated protein (DAP), mRNA  Homo saplens death-essociated protein (DAP), mRNA  Homo saplens succinate-CcA ligase, GDP-forming, alpha subunit (SUCLG1), mRNA  Homo saplens succinate-CcA ligase, GDP-forming, alpha subunit (SUCLG1), mRNA  Homo saplens T7-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, exon 8  Homo saplens SWI/SNF related, matrix associated, ectin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA  Homo saplens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA  Homo saplens inositol polyphosphate 1-phosphatase (INPP1) gene, complete cds  Homo saplens mRNA for KIAA1005 protein, partial cds  Homo saplens mRNA for KIAA1005 protein, partial cds
			9.0E-98 8.0E-98 8.0E-98 8.0E-98 8.0E-98 8.0E-98 3.0E-98 3.0E-98 3.0E-98 3.0E-98 3.0E-98 3.0E-98 3.0E-98 3.0E-98	AJ251158.1  AJ251158.1  5031810  5031810  AB017007.1  AJ229041.1  AJ229041.1  AJ468.1  AA077498.1  AA077498.1  AA077498.1  AH6698.1  11419210  11419210	NT NT NT NT NT NT NT NT NT NT NT NT NT N	Homo sapiens mitogen-activated protein kinase kinase kinase 7 (WAP3KT), mRNA  Homo sapiens partial MICB gene for MHC class I chain-related protein B, exons 2-3 and joined CDS  Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA  Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA  Homo sapiens PMS2L16 mRNA, partial cds  Homo sapiens PMS2L16 mRNA, partial cds  Homo sapiens PMS2L16 mRNA, partial cds  Homo sapiens B96 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3  Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3  Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3  Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3  Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3  AJ403124 3.4 (downregulated in larynx carchoma) Homo sapiens cDNA clone IB  Homo sapiens mRNA for KIAA0707 protein, partial cds  7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01  Homo sapiens activator of 8 phase kinase (ASK), mRNA  Homo sapiens activator of 8 phase kinase (ASK), mRNA  Homo sapiens activator of 8 phase kinase (ASK), mRNA  Homo sapiens uncharacterized bone marrow protein BM039 (BM039), mRNA)

WO 01/57276

Page 428 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		_	~-	_	_	_		_	_		_	_	_	_			_												_			
Onigo Lyon y copes Lybrassed II borre III borre	Top Hit Descriptor	AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone 18	AJ403124 3.4 (downregulated in larynx carcinoma) Homo saplens cDNA clone i8	801873886F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3956517 5'	Human fumarase precursor (FH) mRNA, nuclear cane encoding milochondral protein complete cds	601297955F1 NIH_MGC 19 Homo saplens cDNA clone IMAGE:3628213 5	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA	601149486F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502245 51	601172658F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3528134 5'	Homo sapiens chromosome 21 segment HS21C002	Hono saplens potassium channel subunit (HERG-3) mRNA, complete cds	Homo sapiens fath-acid-Coenzyme A ligase, long-chain 4 (FACL4) mRNA	Homo sapiens attractin precursor (ATRN) gene, exon 16	Homo sapiens attractin precursor (ATRN) gene, exon 16	Homo sapiens PDZ domain-containing guanine nucleotide exchange factor I (LOC51735), mRNA	Homo sapiens phosphatidylinositol 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA	Homo saplens hypothetical protein FLJ10488 (FLJ10488), mRNA	Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA	Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA	Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA	Homo sapiens NKAT4b mRNA, complete ods	Homo saplens NKAT4b mRNA, complete cds	H.sapiens arginase gene exon 3 (EC 3.5.3.1)	Homo saplens AIM-1 protein (LOC51151), mRNA	Homo saplens CTCL tumor antigen se20-9 mRNA, complete cds	W36b04.X1 NCI_CGAP_Ut1 Homo sepiens cDNA clone IMAGE:2261743 3' similar to SW:RL2B_HUMAN PROA316 60'S RIBOSOMAL PROTEIN 1 23 a	PM0-BN0065-100300-001-c06 BN0065 Homo saplens cDNA	y/23f05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243585 5' similar to	PIR:S54204 S54204 ribosomal protein L29 - human;	zp98c09.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628240 5' similar to TR:G806562 G806562 NFRLII IN	601284986F1 NIH MGC 44 Homo sapiens cDNA clone IMAGE:3606692 5'	601284986F1 NIH_MGC_44 Homo saplens cDNA clone IMAGE:3806892 5'
Second Linnes	Top Hit Database Source	EST_HUMAN	EST HUMAN	EST_HUMAN	FZ	EST HUMAN	1.	EST_HUMAN	EST_HUMAN	N	F	LN	N	LΝ	F	L	LΝ	۲N	Ę	LN FN	N	TN	F	LN	TN.	NAMI IM TRA	EST HUMAN		EST_HUMAN	EST HIMAN	EST HUMAN	EST_HUMAN
eigino.	Top Hit Acession No.	-98 AJ403124.1	-98 AJ403124.1	-98 BE900454.1	-98 U59309.1	BE382519.1	-98 11418177 NT	-98 BE261694.1	-98 BE294281.1	98 AL163202.2	-98 AF032897.1	4758331 NT	-98 AF218902.1	-98 AF218902.1	7706512 NT	4505798 NT	11431271 NT	11431271 NT	11428813 NT	11428813 NT	-98 L76666.1	98 1.76666.1	-98 X12664.1	7705868 NT	98 AF273048.1	41882007 4	-98 AW998611.1		98 N49818.1	98 AA195854 1	3E390627.1	-98 BE390627.1
	Most Similar (Top) Hit BLAST E Value	3.0E-98	3.05-98	3.0E-98	3.0E-98	3.0E-98	3.05-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	2.0E-98	1 05-98	1.0E-98		1.0E-98	1.05-98	1.0E-98	1.0E-98
	Expression Signal	1.51	1.51	0.89	2.09	1.4	2.4	0.94	3.36	1.49	0.75	2.9	1.22	1.22	4.26	1.09	1.08	1.08	3.8	3.8	0.57	0.57	2.7	1.25	1.58	23.04	2,12		13.58	3.54	1.07	1.07
	ORF SEQ ID NO:	36655		37259	37775			26737	28128		30240	30274	30767	30768			34208		35347	35348		35426			38418		26458		27831	31370		31913
	Exon SEQ ID NO:		23168	23759	24249	_	25581	13798	15109	15261	17354	17395	17881	17881				20829	21921	21921	22005	22005	22848	23699	24822	13478	13528		14840	18493	18745	18745
	Probe SEQ ID NO:	10243	10243	10839	11299	12951	13039	737	2092	2247	4325	4368	4864	4884	5450	6811	7885	7885	8955	8955	6006	9039	9895	10778	11942	405	455		1813	5390	5849	5649

Page 429 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

ORF SEQ Expression (Top) Hit Acession Database ID No. Signal BLASTE No. Source	35740 5.28	35741 5.26 1.0E-98 AF141349.1 NT	32195 0.84 9.0E-99 AI905004.1 EST_HUMAN	32196 0.84 9.0E-99 AI905004.1 EST_HUMAN	32465 3.77 9.0E-99 AW968635.1 EST_HUMAN ·	37946	37947 3.71 9.0E-99 AI479829.1 EST_HUMAN	37951 2.19 9.0E-99 BF359679.1 EST_HUMAN	38207	35467 1.18 8.0E-99 9635487 NT	32214 9.72	38410 1.99	26473 0.84 6.0E-99 U10991.1  NT	30690 0.97 6.0E-99 4502660 NT	33087 0.96 6.0E-99 7706136 NT	33182 0.81 6.0E-99 L43610.1 NT	33183 0.81 6.0E-99 L43610.1 (NT	34823 1.06 6.0E-99 X99101.1  NT	34846 0.52 6.0E-99 6601589 NT	35511 2.24 6.0E-99 AB036429.1 NT	35612 3.79 6.0E-99 AF080255.1 NT	35613 3.79 6.0E-89 AF080255.1  NT	35669 0.64 6.0E-99 11431994 NT	35670 0.64 6.0E-99 11431994 NT	37560 3.32 6.0E-99 11526299 NT	37459 1.98 6.0E-99 9910279 NT	3 37460 1.98 6.0E-99 9910279 NT Homo saplens UDP-glucose:glycoprotein glucosyltransferase 1 (HUG11), mRNA	28006 1.37 5.0E-99 Y11365.1 NT	30511 1.46 5.0E-99 AF009660.1 INT	5.2 5.0E-99 BE890177.1   EST_HUMAN	5.74 3.0E-99 M95586.1
	35740	35741	32195	32196	32465	37946	37947	37951	38207	35467	32214	38410	26473	30690	33087	33182	33183	34823	34846	35511	35612	35613	35669	35670	37560	37459	37460	28006	30511		
SEO ID NO:	9350 22315		5917 19003	19003	6158 19233	L	58 24399	L	43 24628	9078 22044	33 19019	L.	472 13544	4779 17799	6752 19806	19888	6835 19888			9117 22083			•	f			783 23938		4596 17617	196 25238	8664 21632
Probe SEQ ID NO:	8	ន	8	8	6	11458	11458	11460	11743	8	- 5933	11933	4	47	67.	88	88	8	Ą	9	92	92	8	8	11074	11783	11783	150	45	12496	8

Page 430 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exon Probes Expressed in bone Marrow	Most Similar Top Hit Acession (Top) Hit Acession Signal BLASTE No. Signal Acession Value	16.34 2.0E-99 AW274792.1 EST_HUMAN LIGHT CHAIN ALKALI, NON-MUSCLE ISOFORM (HUMAN);		30490 1.95 2.0E-99 AF095703.1 NT encoding mitochondrial protein, complete cds	2.0E-	99 W23507.1 EST_HUMAN	EST HUMAN	39 AF247457.2 NT	39 AF114487.1 NT	99 11526150 NT	19 M30938.1 NT	1.0E-99 AF192523.1 NT	1.52 1.0E-99 AF192523.1 NT	99 4503730 NT	27966 1.18 1.0E-99 4503730 NT Homo sepiens FK508-binding protein 6 (36kD) (FKBP6) mRNA, and translated products	1.6 1.0E-99 J03171.1 (NT	1.0E-99 AF098018.1	1.0E-99 AF09801	0.59 1.0E-99 7662349 NT	39 11421007 NT	33529 1.77 1.0E-99 11421007 NT Homo septens glycine receptor, alpha 2 (GLRA2), mRNA	TN	1.0E-99 11419721 NT	1.99/ 1.0E-99/AW340174.1   EST_HUMAN	1.89 1.0E-99 7427514 NT	99 7427514 NT	38247 2.17 1.0E-99 AB023222.1 NT Homo sapiens mRNA for KIAA1005 protein, partial cds		9.09 1.0E-99 AF240786.1 NT	1.83 1.0E-100 AL163247.2 NT	26021 1.19 1.0E-100 AL 163247.2 NT Homo sapiens chromosome 21 segment HS21C047
	Exon SEQ ID ORF SEQ NO:	14281	16326 29248	17596 30490	20878 3426	22021 3544	22470 3591	24383 3792	13407 2633:	13463 26390	14452 2742	14591 2756	14591 2756	14968 2796	14968 2796	16158 29070	17435 3032	17435 3032		20199 3352	20199 3352		22516			24416 3796	24670 3824				13123 2602
	Probe SEQ ID NO:	1244	3272 1	4574 1	7936	ì	9507	ì	ľ	379 1	1419 1	1559	_	1944	1944	3101	4407	4407	5836 1		6976	7346	9554	 9878	11473	11473	11705	ì	12253	_1	. 2

Page 431 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Г		F	Г	Г	_	_	_		Т	Т	Г	г	1		7		_			r	Г		г			Т	Т	т	г	_			
	Top Hit Descriptor	Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA	Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA	xv78b11.x1 NCI_CGAP_Brn53 Homo saplens cDNA clone IMAGE:2824605 3'	Homo sapiens chromosome 21 segment HS21C006	Homo saplens chromosome 21 segment HS21C049	EST02975 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCR32	Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat rections	G.gorilla DNA for ZNF80 gene homolog	RC3-HT0625-040500-022-b09 HT0625 Homo sapiens cDNA	Homo sapiens DKFZP586M0122 protein (DKFZP586W0122), mRNA	Homo saplens DKFZP586M0122 protein (DKFZP586M0122), mRNA	UI-H-BI1-afk-c-07-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722164 3	qf62f09.x1 Sogres_tests_NHT Homo septens cDNA clone IMAGE:1754633 3' similar to SW:CYT_COTJA	POTOGI CTOTATIN	Homo sapiens mRNA for KIAA1168 protein, partial cds	Rat mRNA for short type PB-cadherin, complete cds	Homo sepiens KIAA0957 protein (KIAA0957), mRNA	Homo saplens RGH2 gene, retrovirus-like element	Homo sapiens myotubularin-related protein 1a mRNA, partial cds	Homo sapiens follicle stimulating hormone receptor (FSHR) mRNA	Homo saplens small optic lobes (Drosophila) homolog (SOLH) mRNA	Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA	601863164F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4080999 5'	xa82f01.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2573305 3' similar to gb:X12433 PROTEIN PHPS1-2 (HUMAN);	AU118182 HEMBA1 Homo sapiens cDNA clone HEMBA1003046 5'	Homo sapiens NF-£2-related factor 3 gene, complete cds	Human mRNA for plasma Inter-alpha-trypsin inhibitor heavy chain H(3)	Homo sapiens ER to nucleus signalling 1 (ERN1) mRNA	Homo saplens ER to nucleus signaling 1 (ERN1) mRNA	Homo saplens hect domain and RLD 2 (HERC2), mRNA	AU140214 PLACE2 Homo saplens cDNA clone PLACE2000137 5'	AU136800 PLACE1 Homo sapiens cDNA clone PLACE1005089 5'
	Top Hit Database Source	FN	TN	EST_HUMAN	LN	IN	EST_HUMAN	ĽΖ	L Z	EST_HUMAN	LN	ĽΝ	EST_HUMAN	1400	ES THOMAN	NT	IN	NT	TN	TN	LN	NT	NT	EST_HUMAN	EST HUMAN	EST HUMAN	LN	LN	NT	NT	LN	EST_HUMAN	EST_HUMAN
	Top Hit Acession No.	11418230 NT	11418230 NT	00 AW275237.1	1.0E-100 AL163206.2	00 AL163249.2	00 T05087.1		100 X89631.1		7661685 NT	7661685 NT	00 AW 207555.1	7 10000	UU AIZUU857.1	_	100   D83349.1	11418976 NT	00 D11078.1	00 AF057354.1	4503792 NT	5032104 NT	5032104 NT	00 BF244218.1	00 AW075983.1	00 AU118182.1	00 AF135116.1	00 X14690.1	4557568 NT	4557568 NT	5729867 NT	00 AU140214.1	00 AU136800.1
	Most Similar (Top) Hit BLAST E Value	1.0E-100	1.0E~100	1.0E-100/	1.0E-100	1.0E-100	1.0E-100	1.0E~100	1.0E-100 >	1.0E-100 E	1.0E-100	1.0E-100	1.0E-100	4 00 400	1.0E-100 A	1.0E-100 /	1.0E~100 [	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100 /	1.0E-100	1.0E-100 >	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100
	Expression Signel	1.3	1.3	19.0	2.52	96.0	2.53	2.36	4.8	1.4	4.33	4.33	1.23	,	1.48	0.98	1.25	1.98	3.1	1.46	1.94	3.58	3.58	1.71	0.66	1.5	1.29	6.0	0.89	0.89	1.1	4.85	0.61
	ORF SEQ ID NO:	26105	26106	26128	26197	26335	26354						L	L	1	27908		28728		30154	30172		31013	31338	31650	l				32596			33039
	SEQ ID NO:	13187	13187	13203	13272	13409	13432	13511	13563	13581	14067	14067	14582	9777	14585		15268		16089	17267	17293	18136	18136	18467	18682	ŀ	18929	19023	19359	19359	19636		19760
	Probe SEQ ID NO:	69	69	87	170	317	343	437	490	510	1021	1021	1549	7.00	1224	188	2254	2717	3031	4238	4264	5127	5127	5362	5586	5785	5839	5837	6287	6287	9259	6645	6704

Page 432 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		_	_			_		,	_			_	_	_			_				_	_	_										
Onlight Evolit Todas Explassed III Bolle Mailow	Top Hit Descriptor	yf38c08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129134 3'	Homo sapiens Rho GTPase activating protein 6 (ARHGAP6), transcript variant 4, mRNA	ae33b05.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897587 5' similar to TR:G487418 G487418 ACTIN FILAMENT-ASSOCIATED PROTEIN.:	ee33b06.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897587 5' similar to TR:G487418 G487418 ACTIN FILAMENT-ASSOCIATED PROTFIN	MR1-TN0046-060900-004-b05 TN0046 Homo saciens cDNA	MR1-TN0046-060900-004-b05 TN0046 Homo sapiens cDNA	Human mRNA for kidney epidermal growth factor (EGF) precursor	Homo sapiens Rad50 (Rad50) mRNA, complete cds	Homo sapiens Rad50 (Rad50) mRNA, complete cds	601647357F1 NIH_MGC_61 Homo sapiens cDNA clone IMAGE:3931310 5'	Homo sapiens chromosome 21 segment HS21C003	AU116951 HEMBA1 Homo sapiens cDNA clone HEMBA1000343 5'	AU116951 HEMBA1 Homo sapiens cDNA clone HEMBA1000343 5'	Homo saplens mRNA for KIAA 1485 protein, partial cds	wr37g09.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2489920 3' similar to contains element	WE <i>NZZ</i> repetitive element;	PMo-BN0065-100300-001-c06 BN0065 Homo saplens cDNA	AU127720 NT2RP2 Homo sapiens cDNA clone NT2RP2001918 5'	Homo saplens mRNA for KIAA1626 protein, partial cds	Homo saplens mRNA for KIAA1626 protein, partial cds	hh83c11.y1 NCI_CGAP_GU1 Homo saplens cDNA clone IMAGE:2969396 51	hh83c11.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969396 51	AV732101 HTF Homo sapiens cDNA clone HTFBIG01 5'	602020554F1 NCI_CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4156165 5'	Human endogenous retrovirus HERV-K, pol gene	MR0-BN0070-270300-008-h11 BN0070 Homo sapiens cDNA	H.sapiens CD97 gene exon 4	H.saplens CD97 gene exon 4	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene	Homo sepiens chromosome 21 segment HS21C047	Homo saplens golgin-like protein (GLP) gene, complete cds
Second Horse	Top Hit Datebase Source	EST_HUMAN	Ę	EST HUMAN	EST HUMAN	EST HUMAN	EST HUMAN	FN	TN	TN	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	Z	14474 H . E.O.L	ES HOMAN	EST_HUMAN	EST_HUMAN	L	L	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	N	EST_HUMAN	LN T	LN	NT	L	NT	NT
oli igia	Top Hit Acession No.	310887.1	7382479 NT	1.0E-100 AA496841.1	1.0E-100 AA496841.1		1.0E-100 BF376478.1		J63139.1	J63139.1	1.0E-100 BF103853.1	1.0E-100 AL163203.2	1.0E-100 AU116951.1	1.0E-100 AU116951.1	1.0E-100 AB040918.1	, 0000000	1.0E-100 AIS/ 2388.1	1.0E-100 AW998611.1	1.0E-100 AU127720.1	1.0E-100 AB046846.1	1.0E-100 AB046846.1	1.0E-100 AW630487.1	1.0E-100 AW630487.1	1.0E-100 AV732101.1	1.0E-100 BF347519.1		1.0E-100 BF327292.1	X94633.1	X94633.1	AF111170.3	AF111170.3	AL163247.2	1.0E-100 AF266285.1
	Most Similar (Top) Hit BLAST E Value	1.0E-100 R10887.1	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100 X04571.1	1.0E-100 U63139.1	1.0E-100 U63139.1	1.0E-100	1.0E-100	1.0E-100	1.0E-100 /	1.0E-100	707	1.0E-100 /	1.0E-100 /	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100	1.0E-100		1.0E-100	1.0E-100	1.0E-100	1.0E-100 /
	Expression Signal	1.35	1.08	0.96	0.96	1.12	1.12	6.82	0.52	0.52	11.86	5.3	0.59	0.59	3.34	77.0	¥;	2.04	1.06	2.29	2.29	1.47	1.47	0.46	1.94	1.56	7.51	1.78	1.78	3.57	3.57	1.96	2
	ORF SEQ ID NO:	33190	33478	33462	33463		33402	33410			35266				36001			34511						36764	37256		37583	38118		38223	38224	26021	
	Exon SEQ ID NO:	19896	20158	20145	20145	20002	20092	20099	20929	20929	21844	21880	22333	22333	22550	000	77077	21111	22778	22869	22869	23128	23128	23287	23756	23844	24071	24556	24556	24647	24647	13123	24866
	Probe SEQ ID NO:	6843	6934	7019	7019	7070	7070	7078	7990	7990	8877	8914	9368	9368	9288	2000	2000	9788	9842	9942	9942	10203	10203	10364	10836	10924	11111	11618	11618	11681	11681	11712	11989

Page 433 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Unique Lyon Flores Lypressed in Dono Mariow	· Top Hit Descriptor	Homo sapiens otase gene, exon 12	601586031F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3940423 5'	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes. complete cds	7q88h03.x1 NCI_CGAP_Lu24 Homo saplens cDNA clone IMAGE: 3' similar to TR:Q21997 Q21997	COSMID R151. [2] TR:Q9UA08;	Homo saptens SH3-domain binding protein 1 (SH3BP1), mRNA	Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA	Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA	Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA	Homo saplens mRNA for KIAA0446 protein, partial cds	Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA	Homo saplens ventral anterior homeobox 2 (VAX2), mRNA	Homo saplens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA	Homo sapiens phosphoribosy/glycinamide formytransferase, phosphoribosy/glycinamide synthetase, phosphoribosy/aminoimidazole synthetase (GART) mRNA	Homo sapiens of cardiac alpha-myosin heavy chain gene	602156474F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4297291 5'	qg99e09.x1 Sogres_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:1843336 3'	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA	Homo saplens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA	Homo sapiens carboxypeptidase A1 (pancreatic) (CPA1) mRNA	RC3-ST0281-160600-016-h09 ST0281 Homo saplens cDNA	Homo sapiens A kinase (PRKA) anchor protein 6 (AKAP6), mRNA	H. sapiens EWS gene, exon 5	Homo sapiens RIBIIR gene (partial), exon 12	Homo sapiens RIBIIR gene (partial), exon 12	Homo sapiens genomic downstream Rhesus box	Homo sapiens gamma-glutamyltransferase 1 (GGT1) mRNA	601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5'	EST377629 MAGE resequences, MAGI Homo saplens cDNA	Homo sapiens RIBiiR gene (partial), exon 12
20011100	Top Hit Database Source	Ψ	EST_HUMAN 60	Ĭ		T_HUMAN					H L						EST_HUMAN 60	EST_HUMAN 98						EST_HUMAN R		H H	Ĭ.	NT				T_HUMAN	Ĭ V
3000	Top Hit Acession No.	AJ131034.1	BE791491.1	AF240786 1		BF446549.1	11545732 NT	11417974 NT	7110714 NT	7110714 NT	AB007915.2	7110734 NT	7110734 NT	7657454 NT	4503914 NT	Z20656.1	BF681218.1	AI221878.1	5921460 NT	5921460 NT	7662183 NT	7662183 NT	4502996 NT	BE843070.1	5729892 NT	X72993.1	AJ237744.1		AJ252312.1	4885270 NT	BF035327.1	1	AJ237744.1
	Most Similar (Top) Hit BLAST E Value	1.0E-100	1.0E-100	1 0F-100	_		1.0E-100	1.0E-100	1.0E-101	1.0E-101		1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	_	1.0E-101 A	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101		1.0E-101	1.0E-101			1.0E-101	1.0E-101		1.0E-101	1.0E-101 /
	Expression Signal	3.03	1.65	15.03		2:32	2.58	8.6	1.19	1.19	2.53	6.85	6.85	1.48	2.88	1.22	7.23	0.78	1.34	1.34	1.12	1.12	1.58	1.07	1.17	5.3	2.07	2.07	13.42	1.69	2.49	1.73	2.03
	ORF SEQ ID NO:	38600	38601	38622			31799		26118	26119	26676	26702	26703	26776	26868	26929	26994	27051	27594	27595	27776	27777	27987	28107	28387	28646	28763	28764		29194		29367	
	Exon SEQ ID NO:	24996	24997	25025	1			25615		13195	13750	13767	13767	13831	13910	13977	14038	14101	14619		14790	14790			15891	15621	15745	15745	16025	16271	16309		15745
	Probe SEQ ID NO:	12127	12128	12177		12307	12488	13084	78	78	289	705	705	772	854	924	887	1055	1586	1586	1761	1761	1962	2072	2357	2622	2753	2753	2967	3216	3255	3392	3411

Page 434 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Г		Т	Г	Г	Г	Г		Г		Г	Г	Т	Г	Т	Т	T	г	Γ-	_		Г	Т	Т	Т	Г	Т		Г	Г	Г	
	Top Hit Descriptor	Homo sapiens RIBIIR gene (partial), excn 12	Homo saplens ASH2L gene, complete cds, similar to Drosophila ash2 gene	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA	Homo saplens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA	EST377212 MAGE resequences, MAGI Homo sapiens cDNA	Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA	Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA	Homo sapiens carbonic anhydrase VII (CA7), mRNA	Homo sapiens hypothetical protein FLJ22087 (FLJ22087), mRNA	Homo sapiens Kruppel-type zinc finger protein (PEG3) mRNA, alternative splice form 4, partial cds	Homo sapiens Kruppel-type zinc finger protein (PEG3) mRNA, alternative splice form 4, partial cds	wv55f12.x1 NCI_CGAP_Gas4 Homo saplens cDNA clone IMAGE:2533487 3'	601109217F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3349901 5'	RC1-BT0313-220700-018-f12 BT0313 Homo sapiens cDNA	601121621F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345869 5'	601121621F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345869 5'	601764686F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3996837 5'	hh74g10.71 NCI_CGAP_GU1 Homo saplens cDNA clone IMAGE:2968578 5' similar to gb:J03143 INTERFERON-GAMMA RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN);	hh74g10.71 NCI_CGAP_GU1 Homo sapiens cDNA clone IMACE:2968578 5' similar to gb:J03143 INTERFERON-GAMMA RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN);	zk29g08.r1 Soares_pregnant_uterus_NbHPU Homo sepiens cDNA clone IMAGE:471998 5' similar to PIR:S54640 S54640 YD0335 กระคาคโก - waset	Homo sapiens mRNA for KIAA1351 protein, partial cds	Homo sapiens mRNA for KIAA1351 protein, partial cds	Human mRNA for pancreatic gamma-glutamytransferase	Human mRNA for pancreatic gamma-glutamyltransferase	Homo sapiens gamma-glutamytransferase 1 (GGT1), transcript variant 3, mRNA	601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875953 3'	601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875953 3'	Homo sapiens potassium channel, subfamily K, member 10 (KCNK10), mRNA	Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA	to77d11.x1 NCI_CGAP_Gas4 Homo sepiens cDNA clone IMAGE:2184309 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL_18 (HUMAN);
	Top Hit Database Source	N-	L	N	NT	EST_HUMAN	Z	NT	FZ	NT	Z	FN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	HENT HIMAN	N	FZ	N.	Ŋ	FZ	EST_HUMAN	EST_HUMAN	LΝ	FZ	EST_HUMAN
•	Tap Hit Acession No.	11 AJ237744.1	1.0E-101 AB022785.1	5921460 NT	5921460 NT	11 AW965139.1	7427512 NT	7427512 NT	11430734 NT	11545780 NT	1 AF208970.1	1 AF208970.1	1 AW008475.1	1 BE257384.1	1 BF330759.1	1 BE275821.1	1 BE275821.1	1 BF029174.1	1.0E-101 AW630070.1	11 AW630070.1	1 0E-101 A A03B800 1		١	1 X60069.1	1 X60069.1	9845492 NT	BE619667.1	BE619667.1	10863960 NT	11429127 NT	1.0E-101 AI570293.1
	Most Similar (Top) Hit BLAST E Value	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1 OE-104	1.0E-101	1.0E-101	1.0E-101	1.0E-101	1.0E-101	-	1.0E-101	1.0E-101	1.0E-101	1.0E-101
	Expression Signal	2.03	4.58	1.54	1.54	2.08	3.59	3.59	1.16	1.16	4.82	4.82	7.39	1.76	6.3	1.07	1.07	5.11	0.83	0.83	800	0,82	0.82	19.42	19.42	18.13	13.91	13.91	0.61	1.96	0.56
	ORF SEQ ID NO:	28764	29839	L	30964	31371	32420	l					34040		34327	34621	34622	34766	35053	35054	35758				34545	36135	36520	36521	36666	37192	37229
	Exon SEQ ID NO:	15745	16930	18082	18082	18494	19196	19196	19906	20453	20505	20505	20674	20774	20932	21214	21214	21359	21633	21633	22220		l		21139	22679		ŀ	23179	23694	
	Probe SEQ ID NO:	3411	3890	5072	2025	5391	6118	6118	8923	7488	7542	7542	7717	7826	7993	8245	8245	8390	8665	8665	0364	9685	3685	9817	9817	9830	10115	10115	10254	10773	10807

Page 435 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

					-,				_	-	_	_	$\neg$	,	_	_		~	-	_	_	_	_	-	-	_	_	_	-			
Top Hit Descriptor	to Tall XI NCI_CGAP_Gas4 Homo septens cDNA done IMAGE:2184309 3' similer to gb:M26326 beratin, TYPE I CYTOSKELETAL 18 (HUMAN);	601680825F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950887 5'	601680825F1 NIH_MGC_83 Hamo sapiens cDNA clone IMAGE:3950887 5'	branched-chain alpha-keto acid dehydrogenase complex E1 alpha subunit [human, Genomic, 195 nt,	segment 8 of 9]	EST23783 Bone marrow Homo sapiens cDNA 6' end similar to defensin 1	QV1-DT0068-240200-085-a01 DT0068 Homo sapiens cDNA	Homo sapiens phosphatidylinositol 4-kinase 230 (pl4K230) mRNA, complete cds	Homo sapiens chromosome 21 segment HS21C103	Homo saplens down-regulated in adenoma (DRA) mRNA	Human endogenous retroviral DNA (4-1), complete retroviral segment	Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA	Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA	601299962F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3629901 5'	am60c10.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1539954 3' similar to	SW:GG95_HUMAN Q08379 GOLGIN-95.;	am60c10.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1539954 3' similar to	SW:GG95_HUMAN Q08379 GOLGIN-95.;	Homo sapiens PRKY exon 7	Homo saplens KIAA0187 gene product (KIAA0187), mRNA	AU141005 PLACE4 Homo sapiens cDNA done PLACE4000650 5'	AU141005 PLACE4 Homo saplens cDNA clone PLACE4000650 5'	Homo saplens chromosome 21 segment HS21C007	601107843F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3343882 5'	y32c04.r1 Soares placenta Nb2HP Homo sepiens cDNA clone IMAGE:140934 5'	Homo saplens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 7	Homo sapiens HSC54 mRNA for heat shock cognate protein 54, complete cds	Homo sapiens histone deacetylase 7 (HDAC7), mRNA	Homo sapiens histone deacetylase 7 (HDAC7), mRNA	Homo sapiens hect domain and RLD 2 (HERC2), mRNA	ar8209.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2151785 3' similar to TR:Q13137 Q13137 NDP62.;	UI-H-BI3-alj-d-10-0-UI.s1 NCI_CGAP_Sub5 Homo saplens cDNA clone IMAGE:2736835 3'
Top Hit Database Source	EST_HUMAN	EST_HUMAN	EST_HUMAN		۲	EST_HUMAN	EST_HUMAN	LN	F	۲ <u>۷</u>	Ŋ	Ę	눌	EST_HUMAN		EST_HUMAN		EST_HUMAN	ΝŢ	ΝŢ	EST_HUMAN	EST_HUMAN	LN	EST_HUMAN	EST_HUMAN	N-	Ę	ΕZ	F	LN	EST HUMAN	EST_HUMAN
Top Hit Acession No.	1.0E-101 AI570293.1	1.0E-101 BE973648.1	1.0E-101 BE973648.1		538327.1	1.0E-101 AA321316.1	1.0E-101 AW939051.1	1.0E-102 AF012872.1	1.0E-102 AL163303.2	4557534 NT	M10976.1	11437146 NT	11437146 NT	1.0E-102 BE408447.1		32 Al124669.1		1.0E-102 AI124669.1	Y13932.1	7661979 NT	1.0E-102 AU141005.1	1.0E-102 AU141006.1	1.0E-102 AL163207.2	1.0E-102 BE251310,1	02 R66488.1	02 AF067133.1	1.0E-102 AB034951.1	TN05398 NT	7705398 NT	11433046 NT	A1459825.1	102 AW451643.1
Most Similar (Top) Hit BLAST E Value	1.0E-101	1.0E-101	1.0E-101		1.0E-101 S38327.1	1.0E-101	1.0E-101	1.0E-102	1.0E-102	1.0E-102	1.0E-102 M10976.1	1.0E-102	1.0E-102	1.0E-102		1.0E-102		1.0E-102	1.0E-102 Y13932.1	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102		1.0E-102	1.0E-102	1.0E-102
Expression Signal	0.56	0.64	0.64		2.38	162.1	7.64	0.73	5.2	1.07	1.9	2.27	2.27	200.41		1.36		1.36	0.73	1.48	3.24	3.24	1.83	1,95	-	1.52	3.3	3,45	3.45	0.98	2.74	0.5
ORF SEQ ID NO:	37230	37349	37350			38550		26064	26351		27114		L	27423		28352		28353		29047	29120	29121	30170	30356	31045	31460		32163			1	П
Exon SEQ ID NO:	23728	23834	23834		24178	24955	25387	13161	13430	13836	14163	14308	L	14450		15329			16095	16135	16207	16207	17289	17467	18167		L	l	ľ.	ſ	'	LI
Probe SEQ ID NO:	10807	10914	10914		11225	12083	12735	#	341	776	1119	1273	1273	1417		2318		2318	3037	3078	3150	3160	4260	4441	5157	5445	5842	5882	5882	5889	6425	7283

Page 436 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

			_				_																											
	Top Hit Descriptor	601561505F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3831241 5'	601277215F1 NIH_MGC_20 Home sapiens cDNA clone IMAGE:3618243 5'	Homo sapiens mRNA for KIAA0960 protein, partial cds	Homo sapiens mRNA for Centaurin-alpha2 protein	AV710738 Cu Homo sepiens cDNA clone CuAAKD03 5'	Homo saplens ankyrin 2, neuronal (ANK2), transcript variant 2, mRNA	QV3-NT0025-210600-236-h08 NT0025 Homo sapiens cDNA	601501107F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3903145 5'	AV694817 GKC Homo sapiens cDNA clone GKCEEE11 5'	AV694817 GKC Homo sapiens cDNA clone GKCEEE11 5'	Homo sapiens mRNA for KIAA0454 protein, partial cds	601283770F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605536 5'	601283770F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605536 5'	wi63b06.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2397971 3' similar to contains MER4.t1	MER4 MER4 repetitive element ;	AV765842 BM Homo sapiens cDNA clone BMFAUD06 6'	yd13d07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:67021 5'	yd13d07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:67021 5'	AU124629 NT2RM4 Homo sapiens cDNA clone NT2RM4000309 6'	Homo sapiens phospholipid scramblase 1 gene, exon 1 and 5' flanking region	Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA	Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA	RC-BT074-260499-014 BT074 Homo sapiens cDNA	RC-BT074-260499-014 BT074 Homo sapiens cDNA	on57h04.s1 Soares_NFL_T_GBC_S1 Homo sepiens cDNA done IMAGE:1560823 3' similar to SW-CAV2 HI MAN PERGS CAVEOI IN 2-71	Home certains III Department of the III I I I I I I I I I I I I I I I I I	Homo saciens UDP divosyltransferase 2 family, polybenide B11 (UGT2B11) mRNA	RCA-ET072-150800-014-E01-ET072 Homo enjane -DNA	Hinton chromosome 18 erestine francounter/O[CRA8] and (CDA) and chromosome control of the contro	There is a second of the control of	Human unconvenional myssimb (WTOTT) gene, panal dos	Truin septem culturasme at segment not truor	XXV C12X1 INC. CGAP C220 Hamo sapiens CUNA clane IMAGE:2666038 3
	Top Hit Dafabase Source	EST_HUMAN	EST_HUMAN	IN	NT	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN		EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	NT	LN T	LN	EST_HUMAN	EST_HUMAN	NAMILH TRA	- 101	L Z	HOT LIMAN	EN EN	H	FIX	1 N	ESI_HUMAN
•	Top Hit Acession No.	2 BE729323.1	12 BE386105.1	02 AB023177.1	12 AJ238994.1	1.0E-102 AV710738.1	10947063 NT	2 BE763051.1	2 BE910555.1	1.0E-102 AV694817.1	1.0E-102 AV694817.1	02 AB007923.1	2 BE388063.1	2 BE388063.1			1.0E-102 AV755842.1	12 T70393.1	T70393.1	12 AU124629.1	1.0E-102 AF153715.1	11425430 NT	11425430	1.0E-102 A1905037.1			AROTEON		BE35024	1 06 402 1144202 4	157050 4	2 03/033.1	ALIOSO0.2	72/AW300862.1
	Most Similar (Top) Hit BLAST E Value	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102		1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	1.0E-102	4 OF-402	101101	1.0E-102	1 OF 102	4 40	1.01-102	1.0E-102	1.05-102	1.05-102
	Expression Signal	0.75	0.77	0.54	8.85	2.64	0.58	3.61	0.91	1.22	1.22	0.74	0.73	0.73		0.58	0.89	2.15	2.15	3.86	0.71	0.43	0.43	3	3	<u>ر</u> 4	2 38	2.36	2.6	17.7	100	0.07	6.49	4.15
	ORF SEQ ID NO:	33658	33693	33818	33899	34208	34505	34953	35035	35223	35224	35340	35679	35680	•	36062	36030	36082	36083	36163		37221	37222	37254	37255	37303	22010	37888	38105	70788	100	2000	27.75	31/40
	Exon SEQ ID NO:	20314	20341	20429					21613					L		22610			22629		23670			23755		23816	L	丄		1	1	25020		25380
	Probe SEQ ID NO:	7343	7371	7494	7578	7886	8168	8565	8645	8839	8839	8950	9283	9283		9606	9636	9676	9676	9766	10748	10798	10798	10835	10835	10896	11410	11410	11722	1 2040	2007	12182	70171	12/2/

Page 437 of 546 Table 4 Single Exon Probes Expressed In Bone Marrow

Page 438 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

tt Top Hit Descriptor	hm68b05.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 AN Q13769 ANONYMOUS.	hm58b05.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 AN Q13769 ANONYMOUS.	Homo saplens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS142, DXS164, DXS206, DXS230, DXS230, DXS239, DXS268, DXS269, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA	Homo sapiens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS142, DXS164, DXS206, DXS230, DXS230, DXS239, DXS268, DXS269, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA	Homo saplens ribosomal protein L3-like (RPL3L), mRNA	Homo saplens KIAA0851 gene (partial), XT3 gene and LZTFL1 gene		Γ	hn68b05,x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 AN Q13769 ANONYMOUS.	Tm58b05.x1 NCI_CGAP_Bm25 Homo sepiens cDNA done IMAGE;2162289 3' similar to TR:Q13769 AN Q13769 ANONYMOUS.	Т	Γ.	П		Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA	Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA		ae84d12.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:970871 3' similar to gb:x03747_cds1 SODIUM/POTASSIUM-TRANSPORTING ATPASE BETA-1 (HUMAN):	Г	Г	
Top Hit Database Source	EST_HUMAN	EST_HUMAN	ΓΝ	Ę	Ę	۲	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST HUMAN	EST HUMAN	EST_HUMAN	<b>EST_HUMAN</b>	EST_HUMAN	TN	LZ LZ	EST_HUMAN	EST HUMAN	NT	EST_HUMAN	EST_HUMAN
Top Hit Acession No.	1.0E-103 AI 690071.1	1.0E-103 AI690071.1	5032282 NT	6032282 NT	11431100 NT	1.0E-103 AJ289880.1	1.0E-103 AW965776.1	1.0E-103 BE748158.1	1.0E-103 AI590071.1	1.0E-103 AI590071.1	T31080.1	1.0E-103 AU140344.1	1.0E-103 AU140344.1	1.0E-103 BF109244.1	F005921 NT	6005921 NT	1.0E-103 AA581086.1	1.0E-103 AA774980.1	Π	1.0E-103 AW963676.1	1.0E-103 AI878956.1
Most Similar (Top) Hit BLAST E Value	1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103			1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103	1.0E-103 Z37976.1	1.0E-103	1.0E-103
Expression Signal	1.47	1.47	1.73	1.73	1.62	1.06	2.58	3.47	3.69	3.69	0.43	0.92	0.92	1.06	2.86	2.86	1.13	0.48	1.28	1.81	10.03
ORF SEQ ID NO:	33229	33230	31275	31276	31237	33589		33874	34384	34385		35359	35360	35441	35865	32866	35908	35956	L	36874	37012
Exon SEQ ID NO:	19931	19931	18356	18356	18393	20255		20519	20988	20988	21600	21934	21934	22017	22427	22427	22467	22507	23340	23381	23520
Probe SEQ ID NO:	6879	6879	7024	7024	7161	7234	7437	7556	8051	8051	8632	8968	8968	9051	9463	9463	9503	9544	10418	10459	10598

Page 439 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exen SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
11004	23970	37494	1.64	1.0E-103	BE549706.1	EST_HUMAN	7b41f03.X1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3230813 3' similar to gb:M69043 MAJOR HISTOCOMPATIBILITY COMPLEX ENHANCER-BINDING PROTEIN (HUMAN);
11085	i		3.99	1.0E-103	AI792759.1	EST_HUMAN	ol02d06. y5 NCI_CGAP_Lu5 Homo saplens cDNA clone IMAGE:1522283 5' sImilar to TR:Q62084 Q62084 PHOSPHOLIPASE C NEIGHBORING;
11183	24139	37672	1.99	1,0E-103	11424061 NT	۲N	Homo sapiens AXL receptor tyrosine kinase (AXL), mRNA
11183	ł		1.99	1.0E-103	11424061 NT	뉟	Homo sapiens AXL receptor tyrosine kinase (AXL), mRNA
11341	24291		1.48	1.0E-103	BE671418.1	EST_HUMAN	7e50f08 x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3285927 3' similar to gb:J05272 INOSINE- 5-MONOPHOSPHATE DEHYDROGENASE 1 (HUMAN);
11570		38066	9	1.0E-103	BE885279.1	EST_HUMAN	601506347F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3908147 5'
11702	l_		2.59	1.0E-103	3 AU136283.1	EST_HUMAN	AU136283 PLACE1 Homo sapiens cDNA clone PLACE1003923 5'
11774	L.		7.57	1.0E-103	L43610.1	Z	Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30
11980	_		1.47		AB024759.1	N-	Homo sapiens TSA305 gene, exon 16
12047		38516	2.25	Ì	BE644611.1	EST HUMAN	7e88a10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3287610 3' similar to contains MER29.t3 MER29 repetitive element;
	1						Homo sapiens mannosidase, beta A, Iysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3
12178			1.88	1.0E-103	AF224669.1	닐	(UBE2D3) genes, complete cds
12208	26049		1.95	1.0E-103	11526291 NT	본	Homo saplens hypothetical protein FLJ20454 (FLJ20454), mRNA
12410	25183	31820	4.32	1.0E-103	1.0E-103 AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
236	13336	26260		1.0E-10	AL037549.3	EST_HUMAN	DKFZp564H1072_r1 564 (synonym: hfbr2) Homo sapiens cDNA clone DKFZp564H1072 5'
238	L		1.65	1.0E-10	4 AL037549.3	EST_HUMAN	DKFZp564H1072_r1 564 (synonym: hfbr2) Homo saplens cDNA clone DKFZp564H1072 5'
1905			1.86	1.0E-104	4502428 NT		Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA
2203	I	_	2.52		1.0E-104 AA132975.1	EST_HUMAN	zo22c06.s1 Stratagene colon (#937204) Homo saplens cDNA clone IMAGE:587626 3' similar to gb:214116_ma1 CD59 GLYCOPROTEIN PRECURSOR (HUMAN);
2214	L					EST_HUMAN	601577460F1 NIH_MGC_9 Homo saplens cDNA clone IMAGE:3926438 5'
2377			1.02	1.0E-104	1.0E-104 BF334221.1	EST_HUMAN	RC1-CT0249-110900-214-f12 CT0249 Homo sapiens cDNA
2377			1.02		1.0E-104 BF334221.1	EST_HUMAN	RC1-CT0249-110900-214-f12 CT0249 Homo saplens cDNA
2444	_		2.43	1.0E-104	5031670 NT	Z	Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA
2882	L	28858			1.0E-104 M34671.1	NT	Human lymphocytic antigen CD59/MEM43 mRNA, complete cds
2927	L		2.84		1.0E-104 Y11151.1	TN	H.saplens gene encoding phenylpyruvate tautomerase II
3277	16331	29252	0.94		1.0E-104 AU133926.1	EST_HUMAN	AU133926 OVARC1 Homo sapiens cDNA clone OVARC1000936 5'
3402	16451		1.88		1.0E-104 AA319436.1	EST HUMAN	EST21658 Adrenal gland tumor Homo sapiens cDNA 5' end
3615	16659	29577	6.0		1.0E-104 AB033102.1	TN	Homo sapiens mRNA for KIAA1276 protein, partial cds
3615	16659	29578	6.0		1.0E-104 AB033102.1	LN	Homo sapiens mRNA for KIAA1276 protein, partial cds
3963	17003		0.94		1.0E-104 AB032998.1	본	Homo sapiens mRNA for KIAA1172 protein, partial cds

Page 440 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

- 1		_	Г	Т	т	$\overline{}$	_	,	_	$\overline{}$		Ιφ.	Tu0	т	7	Т	_	_	т-	-	г	_	_	_	_	Γ	$\overline{}$		_	_	т-	т
Oligie LAUI Flobes LAPIessed III Dolle Mallow	Top Hit Descriptor	HSC31A071 normalized infant brain cDNA Homo sapiens cDNA clone c-31a07	Human mRNA for fibronectin (FN precursor)	Homo sapiens chromosome 21 unknown mRNA	Homo saplens chromosome 21 unknown mRNA	Homo saplens novel centrosomal protein RanBPM (RANBPM), mRNA	Homo sapiens erythropoietin (EPO) gene, exons 4 and 5 and complete cds	Homo sapiens erythropoletin (EPO) gene, exons 4 and 5 and complete cds	Human Down Syndrome region of chromosome 21 DNA	Human Down Syndrome region of chromosome 21 DNA	Homo saplens aik3 mRNA for Aurora/lpi1-related kinase 3, complete cds	wj03b12.x1 NCI_GGAP_Kid12 Hamo sepiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 KIAA0132 PROTEIN. :contains element LTR7 repetitive element :	wj03b12.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 KIAA0132 PROTEIN. :contains element LTR7 repetitive element:	Homo saplens PDZ domain-containing guanine nucleotide exchange factor i (LOC51735), mRNA	601150451F1 NIH_MGC_19 Homo sepiens cDNA clone IMAGE:3503220 51	601150451F1 NIH_MGC_19 Home sapiens cDNA clone IMAGE:3503220 51	Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA	UI-H-BI4-aow-b-09-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086176 3'	nad16g11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3365948 3'	298b05.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462897 3'	yc83f02.r1 Soares Infant brain 1NIB Homo saplens cDNA clone IMAGE:22440 5	Homo saplens Trio isoform mRNA, complete cds	Homo sapiens Trio isoform mRNA, complete cds	IL3-HT0619-080900-249-F07 HT0619 Homo saplens cDNA	IL3-HT0619-080900-249-F07 HT0619 Hamo sapiens cDNA	Xd76d02.X1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE;2603523 3' similar to TR:Q24116	xd76d02.x1 Soares NF_ T GBC S1 Homo sepiens cDNA clone IMAGE:2603523.3' similar to TR:024116	Q2416 HYPOTHETICAL 29.4 KD PROTEIN.;	Homo saplens histone acetyltransferase MORF mRNA, complete cds	601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5'	601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5'	AV728070 HTC Home series of NA close HTCBVA07 5'
-VOII - 10063	Top Hit Database Source	EST_HUMAN	뉟	Ę	Ę	Ę	F	Ę	Ę	Ŋ	IN	EST HUMAN	EST HUMAN	7706512 NT	EST_HUMAN	EST HUMAN	1	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	LN	LN	EST_HUMAN	EST_HUMAN	NAMI H TAR	100	EST_HUMAN	٦	EST_HUMAN	EST_HUMAN	FST HIMAN
Piglio	Top Hit Acession No.	104 F11745.1	104 X02761.1	104 AF231920.1	104 AF231920.1	4885570 NT	104 AF202314.1	104 AF202314.1	104 U43379.1	104   U43379.1	104 AB017332.1	104 AI768797.1	104 AI768797.1	7706512	104 BE314182.1	104 BE314182.1	11425572 NT	104 BF509244.1		104 AA682308.1	104 T74219.1	104 AF091395.1	104 AF091395.1	104 BF352841.1	04 BF352841.1	1 0E.104 AW 103848 1	10000	104 AW 103848.1	104 AF113514.1			
	Most Similar (Top) Hit BLAST E Value	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104		1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104		1.0E-104	1 OF 104		1.0E-104	1.0E-104	1.0E-104	1.0E-104	1.0E-104
	Expression Signal	0.86	4.11	1.44	1.44	1.02	0.93	0.93	1.44	1.44	66.0	24.48	24.48	0.92	1.53	1.53	2.14	0,74	3.56	69.0	1.21	4.58	4.58	4.97	4.97	89 0	8	0.68	0.62	3.35	3.35	1.36
	ORF SEQ ID NO:	3002		30547	30548	31132	31158	31159	32338	32339	32398	32945					L							34520	34521	36516		36517	36714	36867		l
	Exon SEQ ID NO:	17187	17432	17660	17660	18263			19131	19131	19179	19669				20196	1	ı	22485	22562	22583	22622		21119	21119	75056	L	23037	23231	L	23376	L
	Probe SEQ ID NO:	4156	4404	4639	4639	5255	5292	5292	6050	8050	6100	6611	6611	6805	6973	6973	7435	8944	9522	9618	9639	9869	9669	9226	9226	10444		10111	10307	10453	10453	10765

Page 441 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
10808	3 23729	37231	5.11	1.0E-104	104 AU130765.1	EST_HUMAN	AU130765 NT2RP3 Homo sapiens cDNA clone NT2RP3001398 5'
10917	7 23837	37353	4.5	1.0E-104	104 U66535.1	TN	Human beta4-Integrin (ITGB4) gene, exons 19,20,21,22,23,24 and 25
10931	23851		0.82	1.0E-104	11427757 NT	ΙΝ	Homo sapiens KIAA0649 gene product (KIAA0649), mRNA
11629		38129	3.09	1.0E-104	104 BE720191.1	EST_HUMAN	RC0-HT0885-310700-021-b09 HT0885 Homo sapiens cDNA
11629	24567	38130	3.09	1.0E-104	104 BE720191.1	EST_HUMAN	RC0-HT0885-310700-021-b09 HT0885 Homo sapiens cDNA
11656	L_	38165	3.48	1.0E-104	104 BF684288.1	EST_HUMAN	602141215F1 NIH_MGC_46 Homo saplens cDNA clone IMAGE:4302507 5'
12988	3 25548		1.43	1.0E-104	104 BE393892.1	EST_HUMAN	601312181F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658676 5'
278	15810	26302	1.61	1.0E-105	4502166 NT		Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
425	13120	26018	9.28	1.0E-105	4505150 NT	F	Homo sapiens Meist (mouse) homolog (MEIS1) mRNA
969	13663	26576	3.89	1.0E-105	105 AF032897.1	ĽΝ	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds
969	13663	26577	. 3.89	1.0E-105	105 AF032897.1	LN	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds
1689	14720		2.33	1.0E-105	105 AB020981.1	Ν	Homo sapiens mRNA for cyclin B2, complete cds
1837	14864	27862	1.47	1.0E-105	105 AL163280.2	N	Homo sapiens chromosome 21 segment HS21C080
1943	14967	27964	2.09	1.0E-105	105 D50918.1	۲N	Human mRNA for KIAA0128 gene, partial cds
2199	15214		2	1.0E-105	105 AA318369.1		EST20609 Spleen I Homo sapiens cDNA 5' end similar to autoimmune antigen Ku, p70/p80 subunit
2731	15726		1.07	1.0E-105	105 AA584808.1	EST_HUMAN	no10d05.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100265 3'
3018	3 16076		3.14	1.0E-105	105 AJ229041.1	LN	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
3362	16412		1.11	1.0E-105	7304922 NT	FZ	Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA
3362	16412	29337	1.11	1.0E-105	7304922 NT		Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA
4125	5 17158	30048	3.14	1.0E-105	105 AW961688.1	EST_HUMAN	EST373761 MAGE resequences, MAGG Homo saplens cDNA
4773	17793		0.69		105 BE868881.1	Г	601445823F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3850156 5'
4773	17793	30685	69.0	1.0E-105	105 BE868881.1		601445823F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3850156 5'
. 4793	17810	30702	1.65	1.0E-105	105 AA699335.1	EST HUMAN	최44g02.s1 Soares_feta_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:433682 3'
4976	17991		4.04	1.0E-105	105 AL 163208.2	LN	Homo sapiens chromosome 21 segment HS21C008
5147			1.21	1.0E-105			Homo sapiens mRNA for KIAA0796 protein, partial cds
5403	18506	31383	2.0	1.0E-105	105 AF016704.1	LN	Homo sapiens E6-AP ubiquitin-protein ligase (UBE3A) gene, exon 2
5471	18572		1.02	1.0E-105	11420134 NT		Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA
7089	3 20023	33324	1.57	1.0E-105	105 BF314302.1		601901028F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130334 5'
7089	20023	33325	1.57	1.0E-105	105 BF314302.1	EST_HUMAN	601901028F1 NIH_MGC_19 Hamo sapiens cDNA clone IMAGE:4130334 5'
7174	18405	31203	3.49	1.0E-105	11419196 NT	LN	Homo saplens GTPase activating protein-like (GAPL), mRNA
7174	18405	31204	3.49	1.0E-105	11419196 NT	LN	Homo saplens GTPase activating protein-like (GAPL), mRNA
7223	Li		0.56	1.0E-105		EST_HUMAN	EST363689 MAGE resequences, MAGB Homo saplens cDNA
7501		33827	0.69	1.0E-105	105 BE902616.1	EST_HUMAN	601677279F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960019 5'

Page 442 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
8192	ı		1.09	1.0E-105	X12556.1	NT	Human mRNA for dbl proto-oncogene
8362	l	34743	60.9	1.0E-10	5 T05087.1	EST_HUMAN	EST02975 Fetal brain, Stratagene (cat#536206) Homo sapiens cDNA clone HFBCR32
		L					ws50c10.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2500626 3' similar to
8741	- ]					EST HOMAN	OW ACOA TENCH TS655 ACELTE-COENT IND A OTHER ACE,
9280						EST_HUMAN	RC1-CN0008-070100-011-e05 CN0008 Homo sapiens cDNA
9405	22370		3.19			EST_HUMAN	UI-H-Bi0p-abi-b-12-0-UI.s1 NCI_CGAP_Sub2 Homo sapiens cDNA clone IMAGE:2711782.3'
9558	1	35968	16.0	1.0E-105		EST_HUMAN	QV2-0T0062-140300-083-d09 OT0062 Homo sapiens cDNA
9228	l		16.0	1.0E-105	_	EST_HUMAN	QV2-OT0062-140300-083-d09 OT0062 Homo sapiens cDNA
9356	1		0.76			EST_HUMAN	601443755F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847884 5'
9266	22810	36263	0.76			EST_HUMAN	601443755F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847884 5'
11278		37756	4.59	1.0E-105	1.0E-105 AF254822.1	TN	Homo sapiens SMARCA4 Isoform (SMARCA4) gene, complete cds, alternatively spliced
11564	24504	38061	1.61	1.0E-105	1.0E-105 D63548.1	NT	Homo sapiens COL4A6 gene for a6(IV) collagen, exon 31
11611	24549	38109	2.93	1.0E-105	7705936 NT	Ę	Homo sapiens Ran binding protein 11 (LOC51194), mRNA
							wv74f07.x1 Soares_thymus_NHFTh Homo saplens cDNA clone IMAGE:2535301.3' similar to TR:P87892
11914	24795	38386	2.81	1.0E-105	5 AW027554.1	EST_HUMAN	P87892 PROTEASE;
							7018c10.x1 NCI_CGAP_KId11 Homo sapiens cDNA clone IMAGE:3574291 3' similar to TR:P97680 P97680
11984	24861	38457	2.56	1.0E-10	5 BF430921.1	EST_HUMAN	RIN1.;
12104	24975	38572	1.5		1.0E-105 AB004924.1	LN	Homo sapiens gene for Smad 3, exon 2 and 3
12104	24975	38573	1.5		1.0E-105 AB004924.1	LN	Homo sapiens gene for Smad 3, exon 2 and 3
152	L_		1.76		1.0E-106 AW503208.1	EST_HUMAN	UI-HF-BN0-akt-g-07-0-UI.11 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5'
902		26235				EST_HUMAN	Iq79c01.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE::2215008 3'
543			2.23		56.1	EST_HUMAN	EST377629 MAGE resequences, MAGI Homo saplens cDNA
607	13674	26589	3.07		1.0E-106 J00146.1	LN	Human dinydrofolate reductase pseudogene (psi-hd1)
809	13674	26589	1.71	1.0E-106	- 6	NT	Human dihydrofolate reductase pseudogene (psi-hd1)
1712	14742	27726	4.6		1.0E-106 U48724.1	NT	Human epidemal growth factor receptor (EGFR) precursor-mRNA, exon 4, partial cds
1732			1.01		1.0E-106 U04510.1	N	Homo sapiens type IV collagen alpha 5 chaln (COL4A5) gene, exon 41
							ng41c05.s1 NOI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:937352 3' similar to contains element
1820	14847	27839	4.27		1.0E-106 AA527446.1	EST_HUMAN	LTR3 repetitive element;
							ng41c05.s1 NCI_CGAP_Cc3 Homo sapiens cDNA clone IMAGE:937352 3' similar to contains element
1820	14847				1.0E-106 AA527446.1	EST_HUMAN	LTR3 repelitive element;
2132	15149	28164	1.52		1.0E-106 BE144286.1	EST_HUMAN	MR0-HT0165-140200-008-d10 HT0165 Homo sapiens cDNA
2325	15336	28359	3.89	1.0E-106	4504184 NT	LN	Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA
	l					¥14	Homo sapiens X-linked anhidrolfic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat
2512	15515	28239	1.07	١	1.0E-106 AF003528.1	N	e infa

Page 443 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 444 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO: 8317 8317 8317 8316 9054 9050 9407 9502 9502 9502 9504 9784 10381 10444 10601 10601 10653 10653 10653	Exon SEQ ID NO:: 0.21086 2.1286 2.1286 2.1288 2.1942 2.2226 2.22466 2.	ORF SEQ ID NO: 34453 34699 34700 35445 35366 35445 35445 35907 36181 36181 36181 36181 36181 37017 37017 37018	Expression Signal 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63		AU11686 BE74146 BE74146 BE74146 BE74146 BE74146 BE74146 BE38786 BE38786 AA82536 AA82536 AA479566 AA479566 AA60441 AA60444 AA603088	Top Hit Datebase Source Source Source EST_HUMAN	Top Hit   Descriptor   Continue	---	--	--	---	--------	--	---	--
11242				1.06-	106 BF032755.1	EST HUMAN	601453491F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857366 5' 601453461F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857366 5'								
11402				1.0E-1	106 J05200.1 108 J05200.1		Human ryanodine receptor mRNA, complete cds Human ryanodine receptor mRNA, complete cds								

Page 445 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

					:6:		
Probe SEQ (D NO:	SEQ O	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
11736	24622	38200		1.0E-106	06 BE257385.1		601109219F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3349997 5'
12250	<u> </u>			1.0E-106	16 AW410405.1		fho5h11.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2961644 5'
12481		31796		1.0E-106	16 BE894488.1	EST_HUMAN	601433087F1 NIH_MGC_72 Hano sepiens cDNA clone IMAGE:3918524 5
12481	上	31797		1.0E-106	1.0E-106 BE894488.1	EST_HUMAN	601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5'
12687	<u> </u>		4.46	1.0E-106		EST_HUMAN	RC1-CT0249-090800-024-d05 CT0249 Homo sapiens cDNA
237	13337		4.26	1.0E-107	77	LZ	Homo sapiens Xq pseudoautosomal region; segment 1/2
264	13360		1.85			NT	Human IFNAR gene for interferon alpha/beta receptor
631	13696			1.0E-107	3.1	NT	Homo saplens NY-REN-25 antigen mRNA, partial cds
814	L_		2.77	1.0E-107 X60459.1		NT	Human IFNAR gene for interferon alpha/beta receptor
887	1	26900		1.0E-107		NT	Human IFNAR gene for interferon alpha/beta receptor
970	14022		12.86	1.0E-1	07 AF154121.1	۲N	Homo sapiens sodium-dependent high-affinity dioarboxy/ate transporter (NADC3) mRNA, complete cds
1283	_			1.0E-1	07 AB032253.1	TN	Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds
1573	L	L	3.93	1.0E-107		EST_HUMAN	QV2-HT0540-120900-358-a05 HT0540 Homo saplens cDNA
1787	L	27781	2.54	1.0E-107	07 AF136275.1	LN	Homo sapiens cathepsin Z precursor (CTSZ) gene, exon 3
1857	L			1.0E-1	07 AB007922.2	ΙN	Homo sapiens mRNA for KIAA0453 protein, partial cds
1857	L			1.0E-1	07 AB007922.2	LN	Homo saplens mRNA for KIAA0453 protein, partial cds
2218	ļ	28256			1.0E-107 U13729.1	TN	Human dipeptidy peptidase IV (CD26) gene, exon 20
2370	1		1.02		1.0E-107 AW842451.1	EST_HUMAN	PM1-CN0031-190100-001-d03 CN0031 Homo sapiens cDNA
2370				1.0E-1	07 AW842451.1	EST_HUMAN	PM1-CN0031-190100-001-d03 CN0031 Homo saplens cDNA
2540				1.0E-1	07 BE732460.1	EST_HUMAN	601567619F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842309 6
2540			1.12	1.0E-1	07 BE732460.1	EST_HUMAN	601567619F1 NIH_MGC_21 Home sapiens cDNA clone IMAGE:3842309 5
3019	1	7 28997	3.8	1.0E-	07 AW842451.1	EST_HUMAN	PM1-CN0031-190100-001-d03 CN0031 Homo sapiens CDNA
3019	16077	28998	3.8	1.0E-	107 AW842451.1	EST_HUMAN	PM1-CN0031-190100-001-d03 CN0031 Homo sapiens CDNA
3116	3 16173		3.16	-30.1	5902097 NT	N.	Homo sapiens SMT3 (suppressor of mit two 3, yeast) homolog 2 (SMT 3H2), mKNA
3839			4.78	1.0E-1	07 AF020671.1	TN	Homo sapiens myotubularin (MTM1) gene, exon 9
5706	į .		0.56	1.0E-1	07 AW969038.1	EST_HUMAN	EST381115 MAGE resequences, MAGK Homo saplens cDNA
5965	19050	32251	3.4	1.0E-1	07 BE867469.1	EST_HUMAN	601442558F1 NIH_MGC_65 Home sapiens cDNA clone IMAGE::3846494 5
6975	ı	33527	0.58	Ш	6005706 NT	LN	Homo sapiens A kinase (PRKA) anchor protein 10 (AKAP10), mRNA
7107	7 20041	33343	3 0.63	1.0E-107	11431469 NT	Ŋ	Homo saplens general transcription factor IIIC, polypeptide 1 (alpha subunit, 220kD) (GTF3C1), mRNA
7,50	20041	33344	0.63	1 0F-107	11431469 NT	, L	Homo saplens general transcription factor IIIC, polypeptide 1 (alpha subunit, 220kD) (GTF3C1), mRNA
	-			l	A14/503	EST HIMAN	UI-HF-BN0-aff-c-08-0-UI-1 NIH MGC 50 Homo sapiens cDNA done IMAGE:3079310 5
7585	3 20549	33808	1.10		AW 000010.1	101-11-101-1-10-1-10-1-10-1-10-1-10-1-	

Page 446 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

					Topic I How	Chigh Each Lobor Each Cooked III Don't Iwan Ow
SEQ ID	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
20549	33910	1.18	1.0E-107	AW 503913.1	EST_HUMAN	UI-HF-BN0-alf-c-08-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079310 5'
20726	34098	1.54	1.0E-107		EST_HUMAN	wh56h04.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384791 3'
		0.81	1.0E-107		Z	Homo saplens mRNA for dynein heavy chain (DNAH9 gene)
1			1.0E-107		TN	Homo sapiens mRNA for dynein heavy chain (DNAH9 gene)
li		0.59	1.0E-107	П	EST_HUMAN	fh09d11.x2 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2964524 5'
22770		1	1.0E-107		EST_HUMAN	AU122469 WAMMA1 Homo sapiens cDNA clone WAMMA1002433 5'
24024	37548	2.92	1.0E-107		EST_HUMAN	tg10d06.x1 NCI_CGAP_CLL1 Homo sapiens oDNA clone IMAGE:2108363 3' similar to SW:AACT_DICDI P05095 ALPHA-ACTININ 3, NON MUSCULAR ;
24243	37770	1.52	1.0E-107		FZ	Homo sapiens neuroendoorIne-specific protein (NSP) gene, exan 4
24258	37784	2,09	1.0E-107		EST_HUMAN	602123963F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281039 5'
24588	38158	4.76	1.0E-107		EST_HUMAN	601066681F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452829 5'
23918			1.0E-107		NT	Homo sapiens HSPC049 protein (HSPC049), mRNA
23918	37436	2.44	1.0E-107		NT	Homo sapiens HSPC049 protein (HSPC049), mRNA
0.000		6, 1	FO.			ze45e01.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361944 3' similar to contains THR.b1
70807		9.18	1.01-10.1	A4001415.1	HOLL HOMAIN	I IN IGNALIVE GERTIER.
25759			1.0E-107	11418318	LN.	Homo saplens G-2 and S-phase expressed 1 (GTSE1), mRNA
14009			1.0E-108		EST_HUMAN	601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532348 51
14305		4.89	1.0E-108		NT	Homo sapiens NF2 gene
15108		1.24	1.0E-108		EST_HUMAN	601671914F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE;3954939 5
15442	28460	9.44	1.0E-108	BE206694.1	EST_HUMAN	bb25b10x1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2963899 3' similar to gb:X53777 60S RIBOSOMAL PROTEIN L23 (HUMAN); gb.J05277 Mouse hexokinase mRNA, complete cds (MOUSE);
16410	29332	0.79	1.0E-108		E	Homo saplens potassium channel subunit (HERG-3) mRNA, complete cds
16410	29333	62'0	1.05-108		Ŋ	Homo sapiens potasslum channel subunit (HERG-3) mRNA, complete cds
17215	30102	1.13	1.0E-108	AW664438.1	EST_HUMAN	hi12a11.x1 NC/_CGAPGU1 Homo sapiens cDNA clone IMAGE:2972060 3' similar to SW:3BP1_MOUSE P55194 SH3-BINDING PROTEIN 3BP-1 ;
17578		1.73	1.0E-108	U72961.1	FN	Human hepatocyte nuclear factor 4-alpha gene, exon 2
17578			1.0E-108		LN L	Human hepatocyte nudear factor 4-alpha gene, exon 2
17859	30754	1.39	1.0E-108		F	Homo sapiens KIAA0187 gene product (KIAA0187), mRNA
4956 17971	30862		1.0E-108		EST_HUMAN	UI-HF-BN0-ain-e-04-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3080166 5'
4986 18001	30890		1.0E-108	AJ008005.1	N	Homo sapiens PSN1 gene, alternative transcript
			1.0E-108		LΝ	Homo saplens CCAAT-box-binding transcription factor (CBF2) mRNA
ii			1.0E-108	AW384094.1	EST_HUMAN	RC0-HT0372-241199-031-d03 HT0372 Homo sapiens cDNA
18701	31673		1.0E-108	BE869016.1	EST HUMAN	601444922F1 NIH_MGC_65 Homo sepiens cDNA clone IMACE:3848980 5
00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Exon SEQ ID ORF NO: 100.10	Exon ORF SEQ Express SEQ ID ID NO: Signre SIGNO: Signre Si	Exon NO:-         CRF SEQ Signal Signal SEQ ID ID NO:-         Signal Sig	Exon NO:         CRF SEQ Signal         Expression (Top) Hit Top Hit/ NO:         Crop Hit/ Signal         Top Hit/ No:           20549         33810         1.16         1.0E-107 AW5039           20726         34098         1.54         1.0E-107 AW5039           20943         34337         0.81         1.0E-107 AV4048           21015         34415         0.59         1.0E-107 AV4048           22770         36225         1         1.0E-107 AV4048           24243         37764         2.92         1.0E-107 AV4048           23918         37435         2.44         1.0E-107 AV4048           24588         38158         4.76         1.0E-107 AV4048           25902         244         1.0E-107 AV4048           25902         2.44         1.0E-107 AV4048           25902         2.44         1.0E-107 AV4048           25902         2.44         1.0E-107 AV4048           25902         2.44         1.0E-107 AV4056           25902         1.6E-107 AV4048           25902         1.6E-107 AV6056           16409         28962         1.6E-107 AV6056           16410         28335         0.79         1.0E-108 AF93289           16410 <t< td=""><td>Expn         ONF SEQ         Expression (Top) Hit Top Hit Acession (Top) Hit Top Hit Top Hit Acession (Top) Hit Top Hit Top Hit Acession (Top) Hit Top Hit Acession (Top) Hit Top Hit Acession (Top) Hit Top H</td></t<>	Expn         ONF SEQ         Expression (Top) Hit Top Hit Acession (Top) Hit Top Hit Top Hit Acession (Top) Hit Top Hit Top Hit Acession (Top) Hit Top Hit Acession (Top) Hit Top Hit Acession (Top) Hit Top H

Page 447 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 448 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		,	_	_		_	_			_		_		_	_		_	_			_		τ-	_	_	_	_	_		T
Origin Lyon Lypi coord III Dolle Mariow	. Top Hit Descriptor	Homo sapiens mRNA for FLJ00037 protein, partial cds	602018571F1 NCI_CGAP_Brn67 Homo saplens cDNA clone IMAGE:4154297 5'	IL2-UM0077-260400-079-D06 UM0077 Homo sapiens cDNA	Human mRNA for KIAA0220 gene, partial cds	Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA	Homo sapiens reticulocalbin 1, EF-hand calcium binding domain (RCN1), mRNA	Homo sapiens tetratricopeptide repeat domain 2 (TTC2) mRNA	Homo sapiens mRNA for KIAA0999 protein, partial cds	Homo sapiens mRNA for KIAA0999 protein, partial cds	Homo sapiens chromosome 21 segment HS21C049	Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds	Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds	601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959636 5'	601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959636 5'	Homo sapiens mRNA for KIAA0018 protein, partial cds	Homo sapiens chromosome 21 segment HS21C084	Homo sapiens SNF5/INI1 gene, exon 6	ow95a01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo saplens cDNA clone IMAGE:1654536 3' similar to TR:002197 002197 CIRCULATING CATHODIC ANTIGEN;	ow85a01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to TR:002197 002197 CIRCULATING CATHODIC ANTIGEN.;	Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A) mRNA	J2816F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J2816 6' similar to ZINC FINGER PROTEIN ZNF43	CM3-NN0009-190400-150-f10 NN0009 Homo sapiens cDNA	CM3-NN0009-190400-150-f10 NN0009 Homo sapiens cDNA	Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH) mRNA, complete cds	Homo sapeins adenosine monophosphate deaminase 1 (AMPD1) gene, exons 8-10	Homo sapeins adenosine monophosphate deaminase 1 (AMPD1) gene, exons 8-10	MR0-HT0209-110400-108-a04 HT0209 Homo sapiens cDNA	(1998-06.X1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2239330 3' similar to WP:F53A2.8   OE16100 :	nu93c12s1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:12182623' similar to SW:GTT2_HUMAN P30712 GLUTHATHIONE S-TRANSFERASE THETA 2;
SOMO! I IOV-	Top Hit Database Source	TN	EST_HUMAN	EST_HUMAN	TN	TN	IN	LN	TN	NT	TN	TN	NT	EST_HUMAN	EST_HUMAN	LN TN	TN	둗	EST HUMAN	EST HUMAN	N-	EST HUMAN	EST_HUMAN	EST_HUMAN	N	TN	ΙΝ	EST_HUMAN	EST HUMAN	EST_HUMAN
a algino	Top Hit Acession No.	08 AK024447.1	08 BF346356.1	09 AW803116.1	09 D86974.1	11422486 NT	11438391 NT	4507712 NT	109 AB023216.1	AB023216.1	09 AL163249.2	09 M28699.1	09 M28699.1	09 BE293673.1	Γ.	09 D13643.2	09 AL163284.2	09 717123.1	09 A1022328.1	09 AI022328.1	4504206 NT	09 N85190.1	1.0E-109 AW893192.1	09 AW893192.1	09 AF240698.1	09 M37928.1	1.0E-109 M37928.1	09 BE146144.1	09 AI655417.1	09 AA662274.1
	Most Similar (Top) Hit BLAST E Value	1.0E-108	1.0E-108	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E~109	1.0E-109
	Expression Signal	5.14	11.97	2.17	6.88	1.51	1.97	2.2	13.45	13.45	0.98	23.68	21.33	1.2	1.2	1.63	2.68	2.59	3.42	3.42	1.84	1.81	1.33	1.33	1.66	0.92	0.92	2.3	4.97	1.33
	ORF SEQ ID NO:	31800		26067	26104	26245	26251	26465	26581	26582	27013	27204		27549	27550	27911	28294	28300	28654			29040				29538	L		30089	
	SEQ ID NO:	25236	25467	13164	13185	13320	13328	13540	L	13667	14062	14246	14246	14577	14577	14916	15267	15276	15629	1	ł	16128	16448	16448	16576	16617	16617	16896	17202	1 1
	Probe SEQ ID NO:	12493	12864	44	67	220	229	467	900	900	1014	1207	1208	1544	1544	1891	2253	2262	2630	2630	2631	3071	3399	3389	3530	3572	3572	3856	4171	4189

Page 449 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

	218262 3' similar to SW:GTT2_HUMAN	NA NA		GE:53057 5'		72922 5'							MGE:1842111 3'	mRNA	mRNA				10279 5'	10279 5'			NA clone 7B18H01	12124 5'	12124 6'	E:222110 5' similar to SP:A53491	030 5	030 5	ne c-1ec12	9599 6'	9599 5'	5341 5'
Top Hit Descriptor	nu93c12.s1 NCJ CGAP_Pr22 Homo sepiens cDNA clone IMAGE:1218262 3' similer to SW:GT12_HUMAN P30712 GLUTHATHIONE S-TRANSFERASE THETA 2:	Homo saplens guanylate cyclase activator 1A (retina) (GUCA1A) mRNA	Homo saplens KIAA0377 gene product (KIAA0377), mRNA	ya48e06.r1 Soares Infant brain 1NIB Homo sapiens cDNA clone IMAGE:53057 5'	AU137282 PLACE1 Homo sapiens cDNA clone PLACE1006159 5	602136446F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4272922 5'	Homo sapiens placental protein 11 (serine proteinase) (P11) mRNA	RC1-HT0615-200400-022-d04 HT0615 Homo septens cDNA	CM1-UT0038-060900-399-h07 UT0038 Homo sapiens cDNA	RC1-HT0615-200400-022-d04 HT0615 Homo sapiens cDNA	Human Interleukin 4 (IL-4) gene, complete cds	Human interleukin 4 (IL-4) gene, complete cds	qg86h08.x1 Soares_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:1842111 3'	Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA	Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA	RC5-BT0580-170300-021-F08 BT0580 Homo saplens cDNA	Homo saplens mRNA for KIAA1591 protein, partial cds	Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA	601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5'	601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5'	Novel human gene mapping to chamosome 13	PM0-BT0340-091299-002-e05 BT0340 Homo sapiens cDNA	7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01	601479417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5'	601479417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 6'	ys90g08.r1 Scares retina N2b5HR Homo saplens cDNA clone IMAGE:222110 5' similar to SP.A53491 A54404 BI IMETANIDE SENSITIVE NA K.C4 COTBANSDODTED CONIV.	601289760F1 NIH MGC 8 Homo sapiens cDNA clone IMAGE:3620030 5	601289760F1 NIH MGC 8 Homo sabiens cDNA clone IMAGE:3620030 5	HSC1EC121 normalized Infant brain cDNA Homo sapiens cDNA clone c-1ec12	601063030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449599 5/	601063030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449599 5	602080724F2 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245341 5'
Top Hit Database Source	EST HUMAN	LZ	LN	EST_HUMAN	EST_HUMAN	EST_HUMAN	N	EST_HUMAN	EST_HUMAN	EST HUMAN	Z	N	EST HUMAN		FZ	EST_HUMAN	Z	Ę	EST_HUMAN	Г		EST_HUMAN			EST_HUMAN		EST HUMAN	EST HUMAN	Т	T	EST HUMAN	П
Top Hit Acession No.	1.0E-109 AA682274.1	4504206 NT	7662083 NT	315400.1	1.0E-109 AU137282.1	1.0E-109 BF673718.1	4622	1.0E-109 BE179356.1	1.0E-109 BF379688.1		1.0E-109 M23442.1		VI221385.1	11024711 NT	11024711 NT	1.0E-109 BE074888.1		11432574 NT	3F182707.1			1.0E-109 AW749130.1	1.0E-109 AA077498.1		1.0E-109 BE787540.1		1 0E-109 BE397068 1			1.0E-109 BE540909.1		
Most Similar (Top) Hit BLAST E Value	1.0E-109	1.0E-109	1.0E-109	1.0E-109 R15400.1	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109 M23442.1	1.0E-109 AI221385.1	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109 BF182707.1	1.0E-109	1.0E-109	1.0E-109	1.0E-109	1.0E-109 E	1.0E-109	1 OF-100 F	1 0E-109 E	1.0E-109	1.0E-109 F06604.1	1.0E-109 E	1.0E-109	1.0E-109
Expression Signal	1.33	2.38	1.42	0.94	0.5	0.86	2.28	1.49	0.83	1.29	0.67	0.57	89.8	0.52	0.62	0.49	0.93	3.31	5.45	5.45	1.37	1.08	3.59	17.25	17.25	1 78	0.85	0.65	2.5	2.42	2.42	31.85
ORF SEQ ID NO:	30108	30350	30538	30864	31227	31190	31364		32323		32799	32800	33077	33476	33477	31265	33772	34140	34142	34143	34895	35017		35474	35475	36005	36113	36114	36230	37616	37617	37642
Exon SEQ ID NO:	17220	17459	17651	17973	L	18438	18489	18783	25651	18783	19550		19797	l			20417	20764	20766	20766	21481	21596	21970	22052	22052	22555		L		24088	24088	H
Probe SEQ ID NO:	4189	4432	4630	4958	5318	5332	5386	2688	6037	6111	6485	6485	6742	6933	6933	7145	7451	7815	7817	7817	8513	8628	9004	9806	9806	8696	9705	9705	9839	11128	11128	11158

Page 450 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

	Single Exon Plones Expressed in Done Marrow	Exon ORF SEQ Expression (Top) Hit Acession ID NO: Signal ALAST E No. Source Source	37950 1.65 1.0E-109 AU121370.1 EST_HUMAN	38240 2.82	24621 38199 5.45 1.0E-109 W16510.1 EST HUMAN PR:S43969 S43969 p54-beta stress-activated protein kinases - rat;	24791 38380 1.59 1.0E-109 BE045580.1 EST HUMAN YGR163W MRNA HOMOLOGUE, COMPLETE CDS.;	38597 2.03 1.0E-109 BF339540.1 EST_HUMAN	38598 2.03 1.0E-109 BF339540.1 EST_HUMAN	38607 1.65 1.0E-109 AA490558.1 EST_HUMAN	16276 28300 2.1 1.0E-109/Y17123.1 NT Homo sapiens SNF5/I/NI gene, exon 6	28300 2.24	31774	26022 0.89	26061 4.69 1.0E-110	26062 4.69 1.0E-110 5803073 NT	26022 1.73 1.0E-110 7549804 NT	26316 1.6 1.0E-110 D87291.1 (NT	26517  13,41  1.0E-110 U84550.1  NT	27181 1.0E-110 5031620 NT	14319 Z7282 0.72 1.0E-110 AB032253.1 NT Homo saplens BAZ18 mRNA for bromodomain adjacent to zinc finger domain 1B, complete ods	27958 1.35 1.0E-110 BE379477.1 EST_HUMAN	1.85 1.0E-110 BF508896.1 EST_HUMAN	1.05 1.0E-110 4503098 NT	27282 0.88 1.0E-110 AB032253.1 NT	1.01	16264 29185 1.0E-110 11436041 NT Homo sapiens pregnancy-zone protein (PZP), mRNA	29186 1.55 1.0E-110 11436041 NT	17260 30145 0.93 1.0E-110 M15918.1 NT Human autoimmune antigen small nuclear ribonucleoprotein E pseudogene	30570 2.11	30597 4.29 1.0E-110 AU117812.1 EST_HUMAN	1.94 1.0E-110 7662441 NT	18472 31343 2.23 1.0E-110 BE299406.1 EST_HUMAN 601118710F1 NIH_MGC_17 Homo saplens cDNA clone IMAGE:3028538 5'
Exen SEQ ID NO: NO: 24402 24662 24662 24662 24662 24662 1524 13158 13158 14319		Exon SEQ ID NO:						1													L					1	ı		1	) '	1	5367 18472

Page 451 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	601493677F1 NIH_MGC_70 Homo saplens cDNA clone IMAGE:3895795 5'	Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA	Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA	Human cystic fibrosis transmembrane conductance regulator (CFTR) gene, exon 7	601109388F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350277 5'	Human GS2 gene, exon 2	Human GS2 gene, exon 2	b12d08.x1 NCI_CGAP_Bm25 Homo sepiens cDNA clone IMAGE:2167407 3' similar to SW:ETV1_HUMAN P50549 ETS TRANSLOCATION VARIANT 1	AV714276 DCB Homo sapiens cDNA clone DCBCGE01 6'	AV714276 DCB Homo sapiens cDNA clone DCBCGE01 5'	Homo sapiens mRNA for KIAA0868 protein, partial cds	AU137923 PLACE1 Homo sapiens cDNA clane PLACE1007511 5'	be88f01.y1 NIH_MGC_20 Homo saplens cDNA clone IMAGE:2905561 5' similar to TR:077258 077258 FG-114D9.9 PROTEIN ·	QV2-LT0053-020400-119-e04 LT0053 Home sapiens cDNA	Homo sapiens galactokinase 2 (GALK2), mRNA	H.sapiens mRNA for myotonic dystrophy protein kinase like protein	601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5'	601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5'	zw67g02.r1 Soares_lestis_NHT Homo sapiens cDNA clone IMAGE:781298 5' similar to TR:G1145816 G1145816 FKBP54 ;	601439784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3824548 5'	ILO-BT0163-040899-094-g10 BT0163 Homo sapiens cDNA	Homo sapiens gene for AF-6, complete cds	PM3-NN1082-140900-006-f12 NN1082 Homo sapiens cDNA	UI-H-BI4-acs-b-05-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085784 3'	Human ribosomal protein L23a mRNA, complete cds	601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5'	Homo sapiens cat eye syndrome critical region gene 1 (CECR1), mRNA	Human cardiac alpha-myosin heavy chain (MYH6) gene, exons 32 to 34	Homo sapiens collegen type IX alpha 1 chain (COL9A1) gene, exons 29, 30, 31, and 32	Human enkephalin B (enkB) gene, exon 4 and 3' flank and complete cds	Homo sapiens mRNA for neurexin I-alpha protein, complete cds
Top Hit Database Source	EST_HUMAN	IN	NT	IN	EST_HUMAN	N-	LN PL	EST HUMAN	EST HUMAN	EST_HUMAN	NT	EST HUMAN	EST HIMAN	EST HUMAN	NT	N	EST_HUMAN	EST_HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	Ŋ	EST_HUMAN	Ŋ	NT	NT	TN	NT
Top Hit Acession No.	10 BE621069.1	11419323 NT	11419323 NT	10 M55112.1	10 BE251496.1	10 U08888.1	10   U08888.1	10 A1560289.1	L	10 AV714276.1	0 AB020675.1	IO AU137923.1	10) RF302594 1	0 AW838394 1	11432732 NT	10 Y12337.1	0 BE734357.1	IO BE734357.1	1.0E-110 AA446529.1		10 AW062258.1	10 AB011399.1	1.0E-110 BF364546.1		1 U43701.1	1 BF035327.1	8393092 NT	1 M25142.1	1 AF036126.1	1 K02268.1	1 AB035356.1
Most Similar (Top) Hit BLAST E Value	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110		1.0E-110	1.0E-110	1.0E-110	4 0F-410	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-110	1.0E-111	1.0E-111	1.0E-111	1.0E-111	1.0E-111		1.0E-111
Expression Signal	0.78	7.66	7.66	3.64	0.59	0.71	0.71	0.69	10.79	10.79	2.64	1.01	0.79	3.25	3.4	2.78	3.18	3.18	2.49	5.81	99.6	1.72	2.95	1.34	12.39	3.39	5.88	3.63	1.53	4.65	0.72
ORF SEQ ID NO:		32106	32108				33620			33981			36101	36324	37102	37583	37791	37792	37445								26746			30266	31160
Exon SEQ ID NO:	18904	18924	18924		•		20280	20508		20616	20646	20769	22643	22863	23608	24059	24264	24264	23925	ı	25137	25288	25913		13277	13797	13806	13980	1	ll	18298
Probe SEQ ID NO:	5814	5834	5834	6878	7235	7309	6082	7545	7656	7656	7688	7820	0696	9836	10686	11099	11314	11314	11770	12210	12339	12579	12706	12987	176	736	745	226	2250	4357	5233

Page 452 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

		Γ	Τ	Γ		Γ	Т	Γ	Γ	<u> </u>	Γ	Γ	<u> </u>	Г	Г	Τ	Τ	Т	Г	Γ	Τ	Γ	Γ	П
Top Hit Descriptor	247b07.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:505045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN);	247b07.r1 Soares, pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:505045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN);	601443690F1 NIH_MGC_65 Hamo saplens cDNA clone IMAGE:3847655 5'	Human two-handed zinc finger protein ZEB mRNA, partial cds	qp09g12.x1 NC_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1917574.3' similar to gb:M29893 RAS- RELATED PROTEIN RAL-A (HUMAN);	DKFZp434C1815_r1 434 (synonym: htes3) Homo saplens cDNA clone DKFZp434C1815 5'	UI-H-BW0-ail-d-03-0-UI.s1 NCI_CGAP_Sub6 Home sapiens cDNA clone IMAGE:2729525 31	RC2-BN0033-160200-013-b05 BN0033 Homo sapiens cDNA	L2-NT0101-280700-114-E03 NT0101 Homo sapiens cDNA	Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant A, mRNA	wi68d01.x1 NCI_CGAP_Kid12 Homo saplens cDNA clone IMAGE:2398465 3' similar to gb.J04813 CYTOCHROME P450 IIIA5 (HUMAN);	Homo sapiens basic transcription factor 2 p44 (bt/2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds	zn62c12.rl Stratagene muscle 937209 Homo saplens cDNA clone IMAGE:562774 5' similar to gb:X03740 MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN);	zs79g03.r1 NCL_CGAP_CCB1 Homo sepiens cDNA done IMAGE:703732 5' similar to TR:G1256410 G1256410 11-ZINC-FINGER TRANSCRIPTION FACTOR.;	zs79g03.r1 NCI_CGAP_GCB1 Homo sepiens cDNA clone IMAGE:703732 5' similar to TR:G1256410 G1256410 11-ZINC-FINGER TRANSCRIPTION FACTOR.;	Homo sapiens protein x 0001 (LOC51185), mRNA	Human beta4-integrin (ITGB4) gene, exon 13	Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA	Homo sapiens mRNA for FLJ00045 protein, partial cds	601847132F1 NIH_MGC_55 Homo saplens cDNA clone IMAGE:4078303 5'	Human mRNA for integrin alpha-2 subūnit	Human mRNA for integrin alpha-2 subunit	Homo sapiens Trio isofarm mRNA, complete cds	QV2-BT0817-270900-398-e06 BT0817 Homo sapiens cDNA
Top Hit Database Source	EST_HUMAN	EST_HUMAN	EST_HUMAN	LN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	TN	EST_HUMAN	N	EST_HUMAN	EST_HUMAN	EST HUMAN	FZ	TN	LZ	LN	EST_HUMAN	NT	NT		EST_HUMAN
Top Hit Acession No.	AA151017.1	AA151017.1	BE867909.1	U19969.1	AI344679.1	AL040762.1	AW294648.1	AW993165.1	BF366228.1	9961253 NT	AI761228.1	U80017.1	AA133914.1	AA278868.1	AA278868.1	1896	U66533.1	11420516 NT	AK024453.1	BF214902.1	X17033.1	X17033.1		BF333210.1
Most Similar (Top) Hit BLAST E Value	1.0E-111	1.0E-111	=	1.0E-111	1.0E-111	1.0E-111	1.0E-111	1.0E-111	1.0E-111	1.0E-111	1.0E-111	1.0E-111		1.0E-111	1.0E-111	1.0E-111		1.0E-111		1.0E-111	1.0E-111	1.0E-111	_	1.0E-111
Expression Signal	0.66	0.66	0.89	0.49	1.5	96.0	1.3	0.52	2.57	0.51	0.68	0.8	1.52	0.82	0.82	0.55	3.24	72.0	0.83	26.95	15.22	15.22	2.88	0.46
ORF SEQ ID NO:	31593	31594	31986	32111	32453	33185	33531	33724	34000	34097	34104	34195	34402	34812	34813	34914	34969	35413	35522		35632	35633	35844	36079
Exon SEQ ID NO:	18650	18650	18808	18927	19223			20373	20638	20725	20732	20817	21004	21400	21400	21498	21551	21993	22094	li	22202		22407	22625
Probe SEQ ID NO:	2223	5553	5714	5837	6148	6837	8269	7405	7680	7772	9777	7873	8067	8431	8431	8530	8583	9027	9128	9160	9236	9236	9443	9672

Page 453 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

ORF SEQ Expression (ID NO: Signal B	asess2 1.0E-111 AA504160.1 EST_HUMAN VACUOLAR ATP SYNTHASE CATALYTIC SUBUNIT A, UBIQUITOUS (HUMAN);	1.69 1.0E-111 D10083.1 NT	37057 6.39 1.0E-111 AA131248.1 EST_HUMAN	37592 3.4 1.0E-111 AW296467.1 EST_HUMAN	2.64 1.0E-111 AW374340.1 EST_HUMAN	37859 2.98 1.0E-111 U68159.1 NT	38618 4.77 1.0E-111 11417901 NT	31160 1.75 1.0E-111 AB035356.1 NT	26590 0.9 1.0E-112 4501854 NT	26592 5.51 1.0E-112 U29103.1 NT	26593 5.51 1.0E-112 U29103.1 NT	26618 1.91 1.0E-112 BF509039.1 EST_HUMAN	28619 1.91 1.0E-112 BF509039.1 EST_HUMAN	27006 1.21 1.0E-112 AF157623.1 NT	27058 1.85 1.0E-112 P52742 SWISSPROT	27703 3.1	27704) 3.1 1.0E-112 7662125 NT	28242 1.08 1.0E-112 AI766925.1   EST_HUMAN	28541 1.34 1.0E-112 BE866859.1 EST_HUMAN	3.53 1.0E-112 4504116 NT	29346 1.0E-112 AI826511.1 EST_HUMAN	29849 0.69 1.0E-112 BE076073.1 EST_HUMAN	30542 0.79 1.0E-112 4504116 NT	١.	30695 5.01 1.0E-112,AB037832.1 NT	32027 38.43 1.0E-112 N46046.1 EST_HUMAN	32504 1.28 1.0E-112/AF149773.1 NT	32573 0.89 1.0E-112 AW502437.1 EST_HUMAN	32574 0.89 1.0E-112 AW 502437.1 EST_HUMAN	32687 0.9 1.0E-112 BE741666.1 EST_HUMAN	32935 0.83 1.0E-112 BF672815.1  EST_HUMAN	33130 0.74 1.0E-112 BE273103.1  EST HUMAN   601142755F1 NIH MGC_14 Homo sapiens cDNA clone IMAGE:3506508 5
	36932		37057	37592		37859	38618	31160	26590	26592	26693	26618	28619	27006	27058	27703	27704	28242	28541		29346	29849	30542	30694	30695	32027	32504	32573	32574	32687	32935	33430
Exon SEQ ID	2 23434	0 23462				3 24330	8 25018	5 18298	13675	2 13677			ŀ	3 14054		L.	I	7 15222			16421	L	L			l.,	L	19341	19341	8 19446	3 19662	10848
Probe SEQ ID	10512	10540	10635	11110	1128	11383	12168	12955	9	612	91	8	633	1003	1063	1692	1692	2207	2515	3094	3371	3898	4634	4784	4784	5750	619	8268	6268	6378	6603	6792

Page 454 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

							_	_											_									
Top Hit Descriptor	601142755F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506508 5	602131405F1 NIH MGC 81 Homo sapiens cDNA clone IMAGE:4270921 5'	DKFZp434M0523_r1 434 (synonym: htes3) Homo saplens cDNA clone DKFZp434M0523 5'	Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA	Homo sapiens solute carrier family 6 (neurotransmitter transporter  -proline) member 7 (St CSA7) mRNA	AU118051 HEMBA1 Homo sapiens cDNA clone HEMBA1002773 5'	601443151F1 NIH MGC 65 Homo sapiens cDNA clone IMAGE:3847285 5'	601443151F1 NIH_MGC_65 Homo saplens cDNA clone IMAGE:3847285 57	730g07.xt Seares_NSF_FB_9W_OT_PA_P_S1 Homo sepiens cDNA clone IMAGE:3523020 3' slimitar to TR.09VW35 09VW35 CG8743 PROTFIN	MR3-SN0009-100400-106-b12 SN0009 Homo sapiens cDNA	Homo sapiens mRNA for secreted modular calcium-binding protein (smoc1 gene)	601155323F1 NIH MGC 21 Homo sapiens cDNA clone IMAGE:3138989 5	PM0-CT0237-141099-001-h02 CT0237 Homo saplens cDNA	Human kappa-immunoglobulin germline pseudogene (Chr22.4) variable recion (subaroup V kappa II)	ao95f01 x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3	ao95f01 x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3'	Human X-linked phosphoglycerate kinase gene, exon 8	ao95f01.x1 Schiller meningloma Homo saplens cDNA clone IMAGE:1953625.3'	Homo sapiens elF4E-transporter mRNA, complete cds	UI-H-BW1-ani-f-03-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:30828763'	Homo saplens mRNA for putative RNA helicase, 3' end	601469465F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872536 5'	AU127214 NT2RP2 Homo sapiens cDNA clone NT2RP2000807 5'	601476296F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3879406 5'	601476296F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3879406 5'	AU140291 PLACE2 Homo sapiens cDNA clone PLACE2000274 5'	Homo sapiens P-glycoprotein (mdr1) mRNA, complete cds	Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 8 (GalNac-T8) (GALNT8), mRNA
Top Hit Database Source	EST HUMAN	EST HUMAN	EST_HUMAN	F	Ŀ	EST HUMAN	EST HUMAN	EST_HUMAN	EST HUMAN	EST HUMAN	Ľ.	EST HUMAN	EST_HUMAN	FZ	EST HUMAN	EST_HUMAN	F	EST_HUMAN	۲N	EST_HUMAN	N	EST_HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	LN	۲N
Top Hit Acession No.	2 BE273103.1	2 BF574235.1	1.0E-112 AL043299.1	11416777 NT	11416777 NT	2 AU118051.1	2 BE867635.1	2 BE867635.1	2 BF111413.1	1.0E-112 AW863327.1	1.0E-112 AJ249900.1	1.0E-112 BE280479.1	AW377670.1	1.0E-112 M20707.1	3 Al365586.1	Al365586.1	M11965.1	A1365586.1	AF240775.1	BF515218.1	AJ223948.1	BE780858.1	AU127214.1	BE789172.1	BE789172.1	AU140291.1	AF016535.1	11525737 NT
Most Similar (Top) Hit BLAST E Value	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-112	1.0E-113	1.0E-113	1.0E-113		1.0E-113			1.0E-113	1.0E-113	1.0E-113	1.0E-113	1,0E-113	1.0E-113	1.0E-113
Expression Signal	0.74	1.23	0.66	1.62	1.62	1.93	2.58	2.56	2.18	2.93	2.35	1.7	3.58	6.59	5.37	5.37	5.76	3.01	1.29	0.99	1.16	1.54	89.68	0.54	0.54	4.18	76.0	2.42
요요	33131		33682	33879	33880	34921	35705		36665	37621	37772	37917	38009	38563	26744	26745	26946	27548	27980	28143	29118		31626	32193	32194	32317	32354	32499
Exon SEQ ID NO:			20332	20522	20522	21503	22274	22274	23178	24092	24245	24377	24459	24966	13805	13805	13994	14576	15821	15123	16204	25748	18667	19002	19002	19114	19142	19263
Probe SEQ ID NO:	6792	7018	7362	7559	7559	8535	6086	9309	10253	11132	11295	11433	11518	12095	744	744	941	1543	1956	2106	3147	5316	2220	5916	5916	6031	6061	6188

Page 455 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	Homo saplens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant B, mRNA	Homo sepiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant B, mRNA	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA	Homo saplens glutamate receptor, lonofropic, N-methyl D-aspartate 2A (GRIN2A) mRNA	601152078F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508362 5'	601152078F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508362 5'	601297709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627554 5	601297709F1 NIH_MGC_19 Hamo sapiens cDNA clane IMAGE:3627554 5'	RC1-FT0134-280600-021-d02 FT0134 Homo sapiens cDNA	Homo sapiens transmembrane protein 2 (TMEM2), mRNA	Human erg protein (ets-related gene) mRNA, complete cds	Homo sapiens RAN binding protein 7 (RANBP7), mRNA	Homo saplens RAN binding protein 7 (RANBP7), mRNA	UI-HF-BN0-akj-b-12-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077326 5'	hh81a09.71 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969176 5' similar to TR:O60327 O60327 KIAA0884 PROTEIN;	hh81a09.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969176 5' similar to TR:060327 060327	KIAA0584 PROTEIN;	601105529F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988368 5'	nc80b03.r1 NCI_CGAP_GC1 Homo sapiens cDNA clone IMAGE:797069 5' similar to SW:FEN1_HUMAN P39748 FLAP ENDONUCLEASE-1;	nc80b03.r1 NCI_CGAP_CC1 Homo sapiens cDNA clone IMAGE:797069 5' similar to SW:FEN1_HUMAN	S8/48 TLAY ENDONOCLEASE: I,	Homo saplens mKNA for multiditug resistance protein 3 (ABCC3)	Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3)	Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3)	yd15c01.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108288 3' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN);contains Alu repetitive element;	Homo sapiens hypothetical protein FLJ20080 (FLJ20080), mRNA	Homo sepiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA	Homo saplens minichromosome maintenance deficient (S. cerevisiae) 3 (MCM3), mRNA
Top Hit Database Source						EST_HUMAN	EST_HUMAN		EST_HUMAN	NT	NT	LN	N	EST_HUMAN	EST HUMAN		EST_HUMAN	EST_HUMAN	EST_HUMAN	1407	ESI_HUMAN	NT	NT	NT	EST_HUMAN	NT	NT	NT
Top Hit Acession No.	9961249 NT	9961249 NT	6006002 NT	6006002 NT	BE262161.1	BE262161.1	BE382842.1	BE382842.1	BE772967.1	11429367 NT	M21535.1	5453997 NT	5453997 NT	AW 500519.1	AW630291.1		AW630291.1	BE292968.1	AA680720.1		AA580720.1	Y17151.2	Y17151.2	Y17151.2	T70551.1	8923087 NT	7657529 NT	6631094 NT
Most Similar (Top) Hit BLAST E Value	1.0E-113	1.0E-113	1.0E-113	1.0E-113	1.0E-113	1.0E-113	1.0E-113	1.0E-113		1.0E-113	1.0E-113	1.0E-113	1.0E-113		_		1.0E-113	1.0E-113					1.0E-114		1.0E-114	1.0E-114	1.0E-114	1.0E-114
Expression Signal	0.62	0.62	0.89	0.89	0.72	0.72	2.93	2.93	0.7	1.3	0.73	0.77	0.77	1.51	ю		8	2.94	3.1		3.1	0.65	0.65	0.65	5.97	1.78	3	1.79
ORF SEQ ID NO:	32587	32588	32764	32765				35851		36599	36699	36817	ŀ				37957	L				26092	26093	L	26634			
SEQ ID	19352	19352	┖	1	l _	20506	22414	22414		23115	L	L			<u> </u>	L	24409		İ	ı		13179	13179	<u> </u>	13712		14351	H
Probe SEQ ID NO:	6280	6280	6449	6448	7543	7543	9450	9450	9756	10190	10290	10410	10410	11457	11466		11466	11592	11826		11826	8	8	8	646	1072	1316	1648

Page 456 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exon Probes Expressed in Bone Marrow	Top Hit Descriptor	Homo sapiens nucleoporin-like protein 1 (NLP_1), mRNA	Human gene for catalase (EC 1.11.1.6) exon 2 mapping to chromosome 11, band p13	601869932F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4100214 5'	Homo saplens NOD1 protein (NOD1) gene, exons 1, 2, and 3	Human interferon-alpha receptor (HuJFN-alpha-Rec) mRNA, complete cds	zq05e05.11 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628832 6' similar to contains MER22.t3 MER22 repetitive element ;	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short extoolesmic domain, (semaphorin) 5A (SEMA5A) mRNA	Homo sapiens clathrin, heavy polypeptide-like 1 (CLTCL1), transcript variant 2, mRNA	H.sapiens Isoform 1 gene for L-type calcium channel, exon 20	Homo sapiens sparc/ostsonectin, ewcy and kazal-like domains proteoclycan (testican) (SPOCK) mRNA	Homo saplens HCMOGT-1 mRNA for sperm antigen, complete cds	AU134187 OVARC1 Homo sapiens cDNA clone OVARC1001444 5'	AU134187 OVARC1 Homo saplens cDNA clone OVARC1001444 6'	Homo saplens NF2 gene	Homo sapiens NF2 gene	Homo sapiens gamma-aminobutyric acid (GABA) A receptor, alpha 2 (GABRA2) mRNA	qy68d06.x1 NCI_CGAP_Bm25 Homo saplens cDNA done IMAGE:2017163 3'	qy68d06.x1 NOL_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2017163 3'	Human neural cell adhesion molecule CD56 mRNA, complete cds	Homo seplens mRNA for KIAA0561 protein, partial cds	Homo saplens mRNA for KIAA0561 protein, partial cds	Homo sapiens mRNA for KIAA1564 protein, partial cds	7/69g12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3526847 3' similar to	TR:QBUHN6 QBUHN6 TRANSMEMBRANE PROTEIN 2 ;	dq03f05x1 NIH_MGC_2 Homo sapiens cDNA clone IMAGE:2846744 5'	Homo saplens tyrosine kinase pp60c-src (SRC) gene, exon 12 and partial cds	Human ceruloplasmin mRNA	601449752F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3853500 6	Homo sapiens chromosome 21 segment HS21C027
Exon Probes	Top Hit Database Source	FN	LN LN	EST_HUMAN	NT	TN	EST_HUMAN	Ā	Ę	L	LN TN	۲	N-	EST_HUMAN	EST HUMAN	N	TN	TN	EST_HUMAN	EST_HUMAN	NT	ΙΝ	LN	F		EST_HUMAN	EST HUMAN	L'N	LN	EST_HUMAN	⊢Z
Single	Top Hit Acession No.	FN 6579073	14 X04086.1	14 BF206374.1	14 AF149773.1	14 J03171.1	14 AA194468.1	4506880 NT	4506880 NT	9257201 NT	226298.1	4759163 NT	14 AB041533.1	14 AU134187.1	14 AU134187.1	14 Y18000.1	14 Y18000.1	4557600 NT	14 Al363139.1	14 Al363139.1	14 U63041.1	14 AB011133.1	14 AB011133.1	14 AB046784.1		14 BF109832.1	14 AW327455.1	14 AF077754.1			14 AL163227.2
	Most Similar (Top) Hit BLAST E Value	1.0E-114	1.0E-114	1.0E-114	1.0E-114	1.0E-114	1.0E-114,	1.0E-114	1.0E-114	1.0E-114	1.0E-114 Z26298.1	1.0E-114	1.0E-114	1.0E-114	1.0E-114	1.0E-114	1.0E-114	1.0E-114	1.0E-114	1.0E-114 /	1.0E-114	1.0E-114	1.0E-114	1.0E-114		1.0E-114	1.0E-114 /	1.0E-114 /	1.0E-114	1.0E-114	1.0E-114/
	Expression Signal	5.92	2.91	1.26	1.25	0.78	0.99	1.47	1.47	-	0.51	0.54	1.01	1.08	1.08	5.65	99.9	1.87	1.65	1.66	3.38	6.81	6.81	0.42		0.61	14.09	3.34	1.15	0.95	1.42
	ORF SEQ ID NO:	27691	29119			30335	31110	31483	31484		32665	31224		33770	33771	33824				34889	35439			35744		36948		34546		-	36942
	SEQ ID NO:		16205	16242	17082	17444	18236	18575	18575		19423	18422	20014	20416	20416	20464	20464	21192	21475	21476	22016	22085	22085	22318		22500	22710	21140	22858	23420	23444
	Probe SEQ ID NO:	1681	3148	3187	4044	4417	5228	5474	5474	5876	6354	7191	7280	7450	7450	7499	7499	8223	8507	8607	9049	9119	9119	9353		9537	9769	9818	9066	10498	10522

PCT/US01/00668

WO 01/57276

Page 457 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
10907	23827	37340	0.87	1.0E-114	BE171984.1	EST_HUMAN	MR0-HT0559-250200-002-d07 HT0559 Homo saplens cDNA
							ba73g12.y1 NIH_MGC_20 Homo sepiens cDNA clone IMAGE:2908086 5' similar to gb:X17206 40S RIBOSOMAL PROTEIN S4 (HUMAN); gb:M20832 Mouse LLRep3 protein mRNA from a repetitive element,
11140	24100		15.04	1.0E-114	BE302666.1	EST_HUMAN	complete (MOUSE);
11524	24465		3.01	1.0E-114	AV733454.1	EST_HUMAN	AV733454 cdA Homo sapiens cDNA clone cdABA08 5'
11524	24465	38019	3.01		AV733454.1	EST_HUMAN	AV733454 cdA Homo sapiens cDNA clone cdABA08 5'
12619			2.9		11418041 NT	NT	Homo saplens TNF-inducible protein CG12-1 (CG12-1), mRNA
12859	25464	31725	3.55	1.0E-114	11034850 NT	LN	Homo sapiens hypothetical protein (DJ1042K10.2), mRNA
12859		31726	3.55	'	11034850 NT	LN	Homo sapiens hypothetical protein (DJ1042K10.2), mRNA
24	13144	26044	2.83	1.0E-115	4758111 NT	LN L	Homo saplens HLA-B associated transcript-1 (D6S81E) mRNA
130	13235	26165	2.37	1.0E-115	4505938 NT	LN	Homo saplens polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A) mRNA
134	13239		3.38		TN 4557887 NT	LN	Homo sapiens keratin 18 (KRT18) mRNA
282	13386	26313	5.22	1.0E-115	4W804759.1	EST_HUMAN	QV4-UM0094-300300-156-b08 UM0094 Homo saplens cDNA
							qt06f01.x1 NCI_CGAP_GC4 Homo saplens cDNA clone IMAGE:1948809 3' similar to TR:000538 000538
537	13608	26526	1.12	1.0E-115	Al339206.1	EST_HUMAN	TTF-I INTERACTING PEPTIDE 5;
							qt06f01,x1 NC _CGAP_GC4 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:000536 000536
537			1.12	1.0E-115	AI339206.1	EST_HUMAN	I F-I IN LEKACI ING PEP I IDE 6:
787			0.78			LN.	Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (1AB1), mKNA
787	13846		0.78		5174702 NT	NT	Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA
789	13848	26795	69.69	1.0E-115	4503794 NT	NT	Homo saplens ferritin, heavy polypeptide 1 (FTH1) mRNA
1561	14593	27566	1.46	1.0E-115	AF229180.1	NT	Homo sapiens aipha-aminoadipate semialdehyde synthase mRNA, complete cds
1561	14593	27567	1.48	1.0E-115	AF229180.1	NT	Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds
	l					!	Homo saplens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein
1858	ı	27881	1.24	1.0E-115	U78027.1	Z	[L44L] and FIF3 (FIF3) genes, complete cas
2863			1.7		AW804759.1	EST_HUMAN	QV4-UM0094-300300-156-b08 UM0094 Homo sapiens cDNA
3132	16189	66062	2.74	1.0E-115	AJ245922.1	NT	Homo sapiens mRNA for alphe-tubulin 8 (TUBA8 gene)
3132	18189	29100	2.74	1.0E-115	AJ245922.1	NT	Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene)
3486	16532	29457	2.07	1.0E-115	AJ277892.1	NT	Homo saplens partial TTN gene for titin
4072	17108	30002	4.75	1.0E-115	AB002348.2	NT	Homo sapiens mRNA for KIAA0350 protein, partial cds
4295	17324		0.86	1.0E-115	AL137163.1	NT	Novel human gene mapping to chomosome $X$
4429	17456	30347	3.89	1.0E-115	8912659 NT	NT	Homo saplens sir2-like 3 (SIRT3), mRNA
4465		30378	3.73	1.0E-115	4758279	NT	Homo sapiens EphA4 (EPHA4) mRNA
4702			2.53	1.0E-115	AL096857.1	L'A	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes
4702	17723	30617		1.0E-115	AL096857.1	Ν	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes

Page 458 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

	Top Hit Descriptor	Homo sapiens chromosome 21 segment HS21C068	Homo sapiens chromosome 21 segment HS21C068	EST382416 MAGE resequences, MAGK Homo sapiens cDNA	602119346F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4276738 51	Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA	Homo saplens similar to ER to nucleus signalling 1 (H. saplens) (LOC63433), mRNA	au64g01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519568 3' similar to gbt.107807 DYNAMIN-1 (HUMAN);	au64g01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519568 3' similar to gb:L07807 DYNAMIN-1 (HUMAN);	Homo sapiens sperm surface protein (HSS), mRNA	Homo sapiens sperm surface protein (HSS), mRNA	Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC63436), mRNA	Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA	Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA	yd85b08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:115095 5' similar to SP:DPOG_YEAST P15801 DNA POLYMERASE GAMMA;	oz31a06.x1 Scares_total_fetus_Nb2HF8_9w Homo saplens cDNA clone IMAGE:1676914.3'	oz31a06.x1 Soares_total_fetus_Nb2HF8_9w Homo saplens cDNA clone IMAGE:1676914 3'	Homo sapiens mRNA for KIAA0895 protein, partial cds	RC6-ET0081-130700-011-G01 ET0081 Homo sapiens cDNA	RC6-ET0081-130700-011-G01 ET0081 Homo sapiens cDNA	Homo sapiens eukaryotic translation initiation factor 4B (EIF4B), mRNA	601816352F1 NIH_MGC_56 Homo saplens cDNA clone IMAGE:4050108 5'	Human mRNA for KIAA0338 gene, partial cds	Human mRNA for KIAA0338 gene, partial cds	qg99e09.x1 Scares_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:1843336 3'	qg99e09.x1 Scares_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:1843336 3'	th12s07.x1 NO_CGAP_CLL1 Homo sepiens cDNA clone IMAGE:2118036 3' similar to TR:O16129 O16129 PHENYLALANYL TRNA SYNTHETASE ;	601509879F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911610 5'	xx32f08x1 NCI_CGAP_Ut1 Homo septens cDNA done IMAGE:2839z39 3' similar to SW:CAYP_CANFA P10463 CALCYPHOSINE ;
-	Top Hit Database Source	H	H LN	EST_HUMAN E	EST_HUMAN 6			EST_HUMAN D							EST_HUMAN S	EST_HUMAN o	П		HUMAN	T_HUMAN		T_HUMAN	T L	TN		EST_HUMAN q	EST_HUMAN P		EST_HUMAN P
	Top Hit Acession No.	115 AL163268.2	15 AL 163268.2	115 AW 970335.1	115 BF665387.1	11425128 NT	11425128 NT	15 Al928799.1	115 Al928799.1	11426786 NT	11426786 NT	11426038 NT	7661883 NT	7661883 NT	115 T86774.1	115 AI076598.1	115 AI076598.1		115 BE830187.1	115 BE830187.1	11434772 NT	115 BF382029.1	115 AB002336.1	115 AB002336.1	115 A1221878.1	115 AI221878.1	115 AI524687.1	115 BE886295.1	115 AW571544.1
	E # E			1.0E-1	1.0E-		1.0E-115	1.0E-115	1.0E-115	1.0E-115	1.0E-115	1.0E-115	1.0E-115	1.0E-115	1.0E-115	•		1.0E-115	1.0E-115	1.0E-115	1.0E-115		1.0E-115		1.0E-115		1.0E-115	1.0E-115	1.0E-115
	Expression Signal	2.57	2.57	9.81	1,06	1.68	1.68	1.1	7:	0.68	99.0	19.47	1.82	1.82	75.0	1.22	1.22	7.12	11,55	11.55	4.68	0.64	1.74	1.74	1.02	1.02	0.7	0.73	3.4
	ORF SEQ (D NO:	30849	30850	31401	١.			32049	l	32704				33011	33358	33816	33817		34884		35557		36758	36769		L	37321		37558
	Exon SEQ ID NO:	17959	17959	18523		<b>\</b> '		18867	·	19459	١.	١	19735	19735	20054	20458	20458					i'			١.'	١.	23814	23840	1 1
Γ	Probe SEQ ID NO:	4943	4943	5420	5498	9620	5620	5775	5775	391	6391	6535	6678	6678	7120	7493	7493	638	500	200	9164	10133	358	10358	887	1887	10894	10920	11072

Page 459 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 460 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

EST188414 HCC cell line (matastasis to liver in mouse) il Homo sapiens cDNA 5' end similar to ribosomal qq41e04.x1 Soares\_NhHMPu\_S1 Homo sapiens cDNA clone IMAGE:1935102.3' sImilar to WP:B0495.7 qh09c05.x1 Soares, NFL\_T\_GBC, S1 Homo septens cDNA clone IMAGE:1844168 3' similar to gb:X53741\_ma1 FIBULIN-1, ISOFORM A PRECURSOR (HUMAN); DKFZp762L1110\_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762L1110 5 Homo sapiens mRNA for KIAA0866 protein, complete cds 601562657F1 NIH\_MGC\_20 Homo sapiens cDNA clone IMAGE:3832214 5' EST26111 Cerebellum II Homo sapiens cDNA 5' end similar to zinc finger domain Homo sapiens collagen, type IV, alpha 5 (Alport syndrome) (COL4A5), mRNA DKFZp434C1120\_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C1120 t H.sapiens mRNA for TPCR16 protein Homo sapiens laminin, alpha 2 (merosin, congenital muscular dystrophy) (LAMA2), mRNA op32c11.s1 Soares\_NFL\_T\_GBC\_S1 Homo saplens cDNA clone IMAGE:1578548 EST62685 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to keratin 2 EST62685 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to keratin C02944 Human heart cDNA (YNakamura) Homo sapiens cDNA clone 3NHC0567 Mus musculus fragile-X-related protein 1 (Fxr1h) gene, exons 13a through 15 601338268F1 NIH\_MGC\_53 Homo saplens cDNA clone IMAGE:3680680 5 Homo sapiens acetyl-Coenzyme A carboxylase alpha (ACACA), mRNA **Fop Hit Descriptor** Homo sapiens partial mRNA for xylosyltransferase I (XT-I gene) Homo saplens partial mRNA for xylosyltransferase I (XT-I gene) Homo sapiens ALR-like protein mRNA, partial cds Human apolipoprotein B-100 (apoB) gene, exon 10 EST369789 MAGE resequences, MAGE Homo sapiens cDNA QV4-HT0401-281299-063-c09 HT0401 Homo sapiens cDNA CM2-CT0482-300800-349-e06 CT0482 Homo sapiens cDNA CM-BT043-090299-075 BT043 Homo sapiens cD Homo sapiens Scar2 (SCAR2) gene, partial cds Homo sapiens Scar2 (SCAR2) gene, partial cds H.sapiens mRNA for TPCR16 protein protein L29 CE01765 EST HUMAN EST\_HUMAN EST\_HUMAN EST\_HUMAN EST\_HUMAN EST HUMAN EST\_HUMAN EST HUMAN EST\_HUMAN EST\_HUMAN EST HUMAN EST HUMAN EST HUMAN HUMAN EST HUMAN Top Hit Database Source EST RIF 냗 11418646 4826636 Top Hit Acession 1.0E-116 AJ277441.1 1.0E-116 AJ277441.1 1.0E-116 BE168913.1 1.0E-117 AF134304.2 1.0E-117 AW957699.1 1.0E-116 BF335849.1 1.0E-117 AA316723.1 1.0E-117 AB020673.1 1.0E-117 BE730508.1 1.0E-117 AA323348.1 1.0E-116 AI367140.1 1.0E-116 AL134889.1 1.0E-116 AA354256.1 1.0E-116 AA354256.1 1.0E-116 AV716314. 1.0E-116 BE565507. 1.0E-116 BE158133. AF264750. 1.0E-117 AL042120. 1.0E-117 X89670.1 1.0E-117 X89670.1 AL042120. ģ 1.0E-116 AI216352.1 1.0E-116 11 M19816.1 1.0E-117 1.0E-116 .0E-117 1.0E-117 (Top) Hit BLAST E Value 2.1 3.29 7.19 1.32 1.66 1.04 0.86 2.2 2.04 10.31 10.31 4.01 0.71 5.89 1.39 2.44 Expression Signal 35106 35213 35857 37055 37056 37128 37962 27076 27870 28259 29255 29958 30670 30671 31402 35107 35686 37536 30881 ORF SEQ ÖNO 22960 23555 23555 19720 21680 23635 24010 24413 14874 15235 17055 SEQ ID 20106 21680 22256 15858 14267 1777 20377 4977 7130 4371 4847 7148 Probe SEQ ID 8712 8712 8824 9455 10633 10713 11046 11470 4016 4755 4755 6663 9290 10033 229 1848 12904 560 1079 3281 ö

WO 01/57276 PCT/US01/00668

Page 461 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

				_			_	$\overline{}$	•	_			_						_	_		_			,	_	T		_		_	_	_
	Top Hit Descriptor	Homo sapiens nuclear hormone receptor (shp) gene, 3' end of cds	Homo sapiens nuclear hormone receptor (shp) gene, 3' end of cds	AV717788 DCB Homo sapiens cDNA done DCBBAE01 5'	AV717788 DCB Hamo sapiens cDNA done DCBBAE01 5'	wp86b07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2468629 3' similer to TR:O75065 O75065 KIAA0477 PROTEIN ;	Homo sapiens neural cell adhesion molecule 1 (NCAM1), mRNA	Homo sapiens neural cell adhesion molecule 1 (NCAM1), mRNA	OM-BT043-090299-075 BT043 Homo saplens cDNA	CM-BT043-090299-075 BT043 Homo saplens cDNA	Human gene for very low density lipoprotein receptor, exon 11	601569317F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843748 5'	Homo sapiens gamma-aminobutyric acid type B receptor 2 (GABABR2) mRNA, complete cds	Homo sapiens Drosophila Kelch like protein (DKELCHL), mRNA	Human mRNA for KIAA0191 gene, partial cds	Homo sapiens protein (peptidyl-prolyl cis/trans isomerase) NIMA-Interacting 1 (PIN1), mRNA	Homo sapiens protein (peptidyl-prolyl cls/trans isomerase) NIMA-Interacting 1 (PIN1), mRNA	Homo sapiens mRNA for MEGF8, partial cds	Homo sapiens mRNA for MEGF8, partial cds	601186203F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3544298 5'	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA	Homo sapiens mannosidase, beta A, Iysosomai (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds	Homo sapiens HSPC151 mRNA, complete cds	DKFZp434l056_r1 434 (synonym: htes3) Homo saplens cDNA clone DKFZp434l056 5	Homo sapiens hypothetical protein (DJ328E19.C1.1), mRNA	Homo sapiens sine oculis homeobox (Drosophila) homolog 1 (SIX1) mRNA	601281947F1 NIH_MGC_44 Homo saplens cDNA clone IMAGE:3604019 5'	601281947F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3804019 5'	601281947F1 NIH_MGC_44 Homo saplens cDNA clone IMAGE:3604019 5'	EST363799 MAGE resequences, MAGB Homo saplens cDNA	Human breakpoint cluster region (BCR) gene, complete cds	Human breakpoint duster region (BCR) gene, complete cds
	Top Hit Database Source	TN	N	EST_HUMAN	EST_HUMAN	EST_HUMAN	N	N	EST_HUMAN	<b>EST_HUMAN</b>	NT	EST_HUMAN	NT	TN	NT	NT	NT	NT	TN	EST_HUMAN	NT	ΙN	۲N	LN.	EST_HUMAN	TN	TN	<b>EST_HUMAN</b>	EST_HUMAN	EST HUMAN	EST_HUMAN	NT	LN.
	Top Hit Acession No.	117 L76571.1	117 L76571.1	117 AV717788.1	117 AV717788.1	117 Al950145.1	10834989 NT	10834989 NT	117 A1904151.1	117 AI904151.1	117 D16524.1	117 BE733922.1	117 AF099033.1	11420222 NT	117 D83776.1	11424835 NT	11424835 NT	117 AB011541.1	117 AB011541.1	117 BE269856.1	4501848 NT	4501848 NT	117 AF224669.1	118 AF161500.1	118 AL045854.1	7657016 NT	5174680 NT	118 BE389705.1	118 BE389705.1	118 BE389705.1	118 AW951729.1	118 U07000.1	118 007000.1
ľ	Most Similar (Top) Hit BLAST E Value	1.0E-117	1.0E-117	1.0E-117	1.0E-117	1.0E-117		1.0E-117		1.0E-117	1.0E-117					1.0E-117	1.0E-117			1.0E-117	1.0E-117	1.0E-117	1.0E-117	1.0E-118	1,0E-118	1.0E-118	1.0E-118	1.0E-118	1,0E-118	1.0E-118	1.0E-118	1.0E-118	1.0E-118
	Expression Signal	4.55	4.55	3.71	3.71	3.79	1.01	1.01	0.63	0.63	1.61	1.71	0.64	1.96	2.17	1.96	1.96	2.72	2.72	34.45	1.76	1.76	1.39	2.9	1.27	4.48	1.66	1.93	1.93	1.93	1.55	2.48	2.48
	ORF SEQ ID NO:	34004	34005	34121	34122	34691	35042	35043	35144	35145	36046	36546	36713	37370	37691	37850	37851	38101	38102		28393	38394		26109	26135	26509	26923			28282			28761
	SEQ ID					21280	21622	21622	21722	21722	22597	23071	25701	23854	24161	24322	24322	24542	24542	24608	24802	24802	25911	13189	13211	13589	15854	15256	.15258	15256	15348	15743	15743
	Probe SEQ ID NO:	7883	7683	7795	7795	8311	8654	8654	8754	8754	9654	10145	10306	10934	11207	11375	11375	11604	11604	11722	11921	11921	12429	7	98	518	915	2242	2242	2242	2337	2750	2750

Page 462 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Wolle Mallow Thomas and Thomas an	Most Similar Top Hit Acession (Top) Hit Acession Signal BLASTE No. Source	3.87 1.0E-118   V13932.1   NT Homo sapiens PRKY exon 7	4.61 1.0E-118 AI347694.1	4.61 1.0E-118 AI347694.1 EST_HUMAN	0.98 1.0E-118 AB024469.1	5.07 1.0E-118 D23660.1 NT	1.86 1.0E-118 AF142624.1 NT	1.86 1.0E-118 AF142624.1 NT	0.66 1.0E-118 11422054 NT	0.66 1.0E-11		0.58		0.95 1.0E-118 11425900 NT	8 0.95 1.0E-118 11425900 NT Homo sapiens T-box 4 (TBX4), mRNA	1.81 1.0E-11	1.79 1.0E-11	7 1.79 1.0E-118 4557732 NT Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA.	1.07 1.0E-118 AL043761.1   EST_HUMAN	1.07 1.0E-11	5.13 1.0E-118 11431050 NT	0.72 1.0E-118 L46590.1 NT	2.41 1.0E-118 BE781223.1 EST_HUMAN	7.01 1.0E-118 BE062855.1 EST_HUMAN	7.01 1.0E-118 BE062855.1 . EST_HUMAN	1.39 1.0E-118 AA443024.1 EST_HUMAN	1.39 1.0E-118 AA443024.1 EST_HUMAN	1.02 1.0E-118 AB002381.1 NT	1.02 1.0E-1		1.32 1.0E-1	5.12 1.0E-118 BE263134.1 EST_HUMAN	0.53 1.0E-118 AL048474.2 [EST_HUMAN	2.29 1.0E-118 7657016 NT	
-	_	3.87	4.61	4.61	0.98	5.07	1.86	1.86	99'0	0.66	0.58	0.58	1.44	0.95	0.95	1.81	1.79	1.79	1.07	1.07	5.13	0.72	2.41	7.01	7.01	1.39	1.39	1.02	1.02	1.32	1.32	5.12	0.53	2.29	0.46
	ORF SEQ ID ID NO:	16178	16265 29187		17010 29924			597 31509				32075			047 32248							ļ	274 34685									355 35786		36341	
	Probe Exan SEQ ID SEQ ID NO: NO:		3210 162				Ш						5865 18954	1					7304 20275	l		- 1	8305 21274	- 1		8732 21700	- 1					9390 22355	9421 22386	9951 22878	- 1

Page 463 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

7n17e09.x1 NCI\_CGAP\_Brn23 Homo seplens cDNA clone IMAGE:3564785 3' similar to SW:ZP3A\_HUMAN EST186814 HCC cell line (matastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to dynein, ligh qb77c09.x1 Soares\_fetal\_heart\_NbHH19W Homo saplens cDNA clone IMAGE:1706128 3' similar to on10b05.s1 NCI\_CGAP\_Lu5 Homo sapiens cDNA clone IMAGE:1556241 3' sImilar to WP:E04F6.2 UI-H-BW0-eio-e-07-0-UI.s1 NCI\_CGAP\_Sub6 Homo sepiens cDNA clone IMAGE:2729772 3' DKFZp762M0710\_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762M0710 5 DKFZp762M0710\_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762M0710 5 Homo sapiens matrix metalloproteinase 28 (MMP28) mRNA, complete cds Homo sapiens matrix metalloproteinase 28 (MMP28) mRNA, complete cds tm23f10.x1 Soares\_NFL\_T\_GBC\_S1 Homo sapiens cDNA clone IMAGE:2157451 3' P21754 ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A PRECURSOR Homo sapiens melanoma differentiation associated protein-5 (MDA5), mRNA 601499514F1 NIH\_MGC\_70 Homo sapiens cDNA clone IMAGE:3901583 5 601499514F1 NIH\_MGC\_70 Homo sapiens cDNA clone IMAGE:3901563 5 601280564F1 NIH\_MGC\_39 Homo sapiens cDNA clone IMAGE:3622526 5 601592005F1 NIH\_MGC\_7 Homo sapiens cDNA clone IMAGE:3946081 5' 39 Homo sapiens cDNA clone IMAGE:3641603 Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA SW:K1CJ\_MOUSE P02535 KERATIN, TYPE I CYTOSKELETAL 10 Homo saplens flap structure-specific endonuclease 1 (FEN1), mRNA AU133399 NT2RP4 Homo sapiens cDNA clone NT2RP4001991 51 Homo sapiens mRNA for KIAA0930 protein, partial cds. Homo sapiens hypothetical protein FLJ10052 (FLJ10052), mRNA Top Hit Descriptor EST386296 MAGE resequences, MAGM Homo sapiens cDNA QV0-UM0091-120900-385-b12 UM0091 Homo saplens cDNA QV0-UM0091-120900-385-b12 UM0091 Homo sapiens cDNA RC1-NN0073-250800-018-g06 NN0073 Hamo sapiens cDNA Homo sapiens KIAA0477 gene product (KIAA0477), mRNA AV693731 GKC Homo sapiens cDNA clone GKCDHB03 5' Homo sapiens CGI-105 protein (LOC51011), mRNA Human neurofibromin (NF1) gene, complete cdt Human c-fes/fps proto-oncogene chain 1, cytoplasmic CE01214 EST\_HUMAN EST\_HUMAN EST\_HUMAN EST\_HUMAN EST\_HUMAN EST HUMAN EST\_HUMAN EST\_HUMAN EST\_HUMAN **EST HUMAN** EST\_HUMAN EST\_HUMAN **EST HUMAN** EST\_HUMAN EST\_HUMAN EST HUMAN EST\_HUMAN HUMAN EST\_HUMAN Database 불양 Source 8922205 NT 4504116 6325465 7705607 11545921 Top Hit Acession 1.0E-119 AW974193.1 1.0E-118 AW296351.1 1.0E-118 AA315007.1 .0E-119 AB023147.1 1.0E-119 AA916760.1 1.0E-119 BE796614.1 1.0E-119 BE615150.1 1.0E-118 BE736213.1 1.0E-118 BF195407.1 BF093687.1 1.0E-119 BE936121.1 .0E-119 AL134903.1 1.0E-119 AL134903.1 1.0E-119 AI150703.1 1.0E-119 AF315683.1 ġ 1.0E-119 M89914.1 1.0E-119 1.0E-118 1.0E-118 1.0E-118 1.0E-118 1.0E-119 1.0E-119 1.0E-119 (Top) Hit BLAST E Vost Simila 0.46 2.79 231 6.48 <u>8</u> 0.98 0.68 2.88 0.68 0.68 7.38 0.69 4.98 0.5 1.51 0.5 2.67 Expression Signal 37116 37158 38106 38352 38355 38356 27972 31391 31411 31538 32553 32778 32936 32952 33964 35395 36519 36579 31938 32731 29087 31937 ORF SEQ D NO: 23663 24545 24765 24768 14973 16176 16308 17015 18526 18608 18766 19323 19483 19483 19530 19683 19674 21975 23039 23620 24768 24911 18531 SEQ ID 15857 ÿ 2381 6616 5508 6415 6415 6465 6604 7640 5410 5423 6250 10113 10698 11884 12036 3119 5671 10741 10899 11607 11887 1950 3254 3975 5428 SEO ID 11887 1038 567 ÿ

Page 464 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Most Similar Expression (Top) Hit Acession Database	Signal BLASTE No. Source	5 5.31 1.0E-119 AA465124.1 EST_HUMAN aa32f05.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814977 5'	1.12	0.73 1.0E-119 11425837 NT	0.73 1.0E-119 11425837 NT	0.79 1.0E-119 AB032261.1 NT	1.86 1.0E-119 AJZ97701.1 NT	1.86 1.0E-119 AJ297701.1 NT		3.21 1.0E-119 AW847519.1   EST_HUMAN   RC3-CT02/12-240999-011-f03 CT02/12 Homo saplens cDNA	2 0.99 1.0E-120 4507334 NT Homo saplens synaptojanin 1 (SYNJ1), mRNA	1.6 1.0E-120 AF248540.1 NT Homo saplens intersectin 2 (SH3D1B) mRNA, complete cds	1.6 1.0E-120 AF248540.1	2.56 1.0E-120	4 2.5 1.0E-120 AF167706.1 NT Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds	8 1.08 1.0E-120 4755124 NT Homo saplens equaporin 4 (AQP4), splice varient b, mRNA	1.34 1.0E-120 4507334 NT	1.81 1.0E-120 AF056490.1 NT	8 1.81 1.0E-120 AF056490.1 NT Homo saplens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds	2.67 1.0E-120 AF098463.1 NT	2.67 1.0E-120 AF098463.1 NT	13.85 1.0E-120 BF568222.1  EST_HUMAN	13.85 1.0E-120 BF568222.1 EST_HUMAN	0.53 1.0E-120 M29428.1 NT	0.53 1.0E-120 M29428.1 NT		1.76) 1.0E-120 Y00067.1  NT	1.76 1.0E-120 Y00067.1 NT	2.82 1.0E-120 BF337599.1  EST_HUMAN	0.75 1.0E-120	0.75 1.0E-120 AB033057.1 NT	2.5 1.0E-120 AB007964.1 NT	2.5 1.0E-120 AB007964.1 NT	5 1.13 1.0E-120 AB007934,1 NT Homo sapiens mRNA for KIAA0465 protein, partial cds
																		L																
	Ö Q Q	330 37025			37345	37419	37870	140 37871	176		95 26322	88 27040		55 27429	37 27614	37 28558		13 30297	13 30298		12 30607	15 32098				71 34147	95 34602							63 35185
Probe Exon		10608 23530	10870 23790		10911 23831	10985 23905	11394 24340	11394 24340	11535 24476	12486 25901	301 13395	1042 14088	1042 14088	1422 14455	1605 14637	2534 15537	3318 13395	4385 17413	4385 17413	4691 17712	4691 17712	5825 18915				7823 20771	8226 21195	8226 21195	8675 21643	8747 21715	8747 21715		_	8796 21763

WO 01/57276

Page 465 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

İ			Γ	Γ						Γ	Γ		Γ		Γ	Γ			T	Ī	Γ	Γ		Γ	Γ		Γ	Γ	Γ	Γ	Γ		Γ
	Top Hit Descriptor	601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5'	601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5'	601888956F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122876 5'	AU133205 NT2RP4 Homo sepiens cDNA clone NT2RP4001541 5'	Novel human gene mapping to chomosome 13, similar to rat RhoGAP	CM-BT043-090299-075 BT043 Home sapiens cDNA	Homo sapiens mRNA for KIAA1077 protein, partial cds	601176727F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532015 5'	601443135F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847281 5'	601443135F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE;3847281 5'	Human muscle glycogen phosphorylase (PYGM) gene, 5'UTR and exon 1	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA	Homo sapiens NF2 gene	AU134963 PLACE1 Homo sapiens cDNA clone PLACE1000899 5'	Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA	Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107kD (INPP4A), splice variant a, mRNA	Homo saplens inositol polyphosphate-4-phosphatase, type [. 107kD (INPP4A) splice variant a mRNA	Homo sapiens metabotropic glutamate receptor 1 beta (mGluR1beta) mRNA, complete cds	Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes	Homo saplens hHb3 gene for hair keratin, exons 1 to 9	Homo sapiens hHb3 gene for hair keratin, exons 1 to 9	Homo sapiens mRNA for KIAA1337 protein, partial cds	Homo saplens mRNA for KIAA1337 protein, partial cds	Homo sapiens adaptor-related protein complex AP-4 epsilon subunit mRNA, complete cds	qx57b01.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2005417 3'	H.saplens ECE-1 gene (exon 17)	Homo sapiens synaptojanin 1 (SYNJ1), mRNA	hu09f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166119 3'	601140485F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3049820 5'	Homo sapiens Xq pseudoautosomal region; segment 2/2	RC3-NN0066-270400-011-f02 NN0066 Homo saplens cDNA	PC3 KINOGE 370400 044 903 KINOGE Home continue and A
	Top Hit Database Source	EST_HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN	FN	EST_HUMAN	TN	EST_HUMAN	EST_HUMAN	EST_HUMAN	L	NT	N	EST HUMAN	LZ	LN	F.V.	LN	FZ	FZ	LN	LN	LN	FN	EST_HUMAN	FZ	LN LN	EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	EST HIMAN
	Top Hit Acession No.	20 BE392102.1	20 BE392102.1	20 BF306541.1	20 AU133205.1	20 AL049801.1	20 A1904151.1	20 AB029000.1	1.0E-120 BE296387.1	20 BE867619.1	20 BE867619.1	20 U94774.1	11417862 NT	21 Y18000.1	21 AU134963.1	5032192 NT	4755139 NT	4755139 NT	21 L76631.1	1 AF111168.2	21 Y19208.1	21 Y19208.1	1.0E-121 AB037758.1	1.0E-121 AB037758.1	1.0E-121 AF155156.2	1263294.1	(91937.1	4507334 NT	21 BE222250.1	1.0E-121 BE271424.1	\J271736.1	1.0E-121 AW898086.1	1 OF-124 AWRORDR 1
	Most Similar (Top) Hit BLAST E Value	1.0E-120	1.0E-120	1.0E-120	1.0E-120	1.0E-120	1.0E-120 /	1.0E-120	1.0E-120	1.0E-120	1.0E-120	1.0E-120	1.0E-120	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121 A1263294.1	1.0E-121 X91937.1	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1.0E-121	1 0F-1241/
	Expression Signal	4.14	4.14	3.99	7.33	0.67	0.51	3.02	19.45	2.5	2.5	2.23	1.45	76.0	1.92	1.83	1.17	1.17	1.36	1.69	3.41	3.41	0.84	0.84	8.63	1.39	3.4	0.93	0.86	0.58	0.7	0.82	0.82
	ORF SEQ ID NO:	36247	36248	36505	36524	36539							31785	26113		26721	28007	28008	28149	28961	29067	29068	29518	29519	29646	30267	30911	31067	31198	31901		31230	31231
	Exan SEQ ID NO:	22795	22795	23028	23044	23081	23177	23358	24404	24638	24638	24842	25318	13191	13462	15848	15004	15004	15129	16038	16154	16154	16593	16593	16733	17385	18028	18191	18445	18737	20094	18387	18387
	Probe SEQ ID NO:	9859	9859	10102	10118	10135	10252	10436	11461	11672	11672	11963	12632	74	378	725	1983	1983	2112	2980	3097	3097	3547	3547	3690	4358	5012	5182	5340	5641	7072	7155	7155

PCT/US01/00668

WO 01/57276

Page 466 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
8269	21238			1.0E-121	11436217 NT	LZ	Homo sapiens gamma-aminobutyric acid (GABA) A receptor, alpha 2 (GABRA2), mRNA
8273	21242	34653		1.0E-121	1.0E-121 D84122.1	LΝ	Homo sapiens DNA for prostacyciin synthase, exon 8
8273	21242	34654	2.22	1.0E-121	1.0E-121 D84122.1	TN	Homo saplens DNA for prostacyclin synthase, exon 8
10217	23142	06996	62.0	1.0E-121	1.0E-121 AW583858.1	EST_HUMAN	ia05g05.yl Human Pancreatic Islets Homo sapiens cDNA 5' similar to TR:075457 075457 CYTOSOLIC PHOSPHOLIPASE A2-GAMMA.;
10217	23142	36831	0.79		1.0E-121 AW583858.1	EST_HUMAN	ka05g06.y1 Human Pancreatic Islets Homo saplens cDNA 5' similar to TR:O75457 O75457 CYTOSOLIC PHOSPHOLIPASE A2-GAMMA.;
11130	24090	37619	1.87	1.0E-121	11427788 NT	L L	Homo sapiens COX11 (yeast) homolog, cytochrome c oxidase assembly protein (COX11), mRNA
11136	24096	37625	1.52	1.0E-121	1.0E-121 AF064200.1	FZ	Homo sapiens UDP-glucuronosyltansferase 2B4 precursor (UGT2B4) mRNA, UGT2B4*E458 allele, complete cds
11315	24265	37793		1.0E-121	30334	NT.	Homo sapiens chloride intracellular channel 4 like (CLIC4L), mRNA
11340	24290	37815	3.42	1.0E-121	1.0E-121 N59624.1	EST_HUMAN	yv74c01.s1 Soares fetal liver spleen 1NFLS Homo saplens cDNA clone IMAGE:248448 3'
11664	i i				1.0E-121 AU119320.1	EST_HUMAN	AU119320 HEMBA1 Homo sapiens cDNA clone HEMBA1005536 5'
267	ı		2.23		11526176 NT	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA
336						IN	Homo sapiens intersectin short Isoform (ITSN) mRNA, complete cds
358			2.1	1.0E-122	11526176 NT	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA
883	13938	26897	3.29	1.0E-122	1.0E-122 AF114488.1	NT	Homo sapiens intersectin short isoform (ITSN) mRNA, complete ods
1224	14262	27219	16.66		1.0E-122 M20707.1	NT	Human kappa-Immunoglobulin germline pseudogene (Chr22.4) variable region (subgroup V kappa II)
1702	14732	27714	1.02	1.0E-122	<b>AF1677</b>	TN	Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds
1725	14755	27741	1.67	1.0E-122	11418424 NT	NT	Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA
1725	14755			1.0E-122	11418424 NT	TN	Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA
1831	14858		5.11	1.0E-122	BE906024.1	EST_HUMAN	601497032F1 NIH_MGC_70 Hamo sapiens cDNA clane IMAGE:3899358 5
2499	15502			1.0E-122	BF316170.1	EST_HUMAN	601896173F1 NIH_MGC_19 Hamo sapiens cDNA clane IMAGE:4125234 5'
2498	15502	28529	8.15	1.0E-122	BF316170.1	EST_HUMAN	601896173F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125234 5
2851	15911	28834	0.91	1.0E-122	1.0E-122 AF264717.1	LN	Homo saplens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds
4883	17900	30789	1.03	1.0E-122	4502166 NT	FN	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-li, Alzheimer disease) (APP), mRNA
5025	18039		1.4	1.0E-122	1.0E-122 AW504645.1	EST_HUMAN	UI-HF-BN0-all-a-03-0-UI.r1 NIH_MGC_50 Homo saplens cDNA clone IMAGE:3079948 51
5643	18739				BE256039.1		601113567F1 NIH_MGC_16 Hama sapiens cDNA clane IMAGE:3354232 5'
6920	18739	31904	7	1.0E-12	BE256039.1	EST_HUMAN	601113567F1 NIH_MGC_16 Homo saplens cDNA clone IMAGE:3354232 5
7422	20389		0.6	1.0E-12	2 AA868671.1	EST_HUMAN	ak49h06.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1409339 3'

WO 01/57276 PCT/US01/00668

Page 467 of 546 Table 4

ÖΝΘ

SEQ ID

Probe SEQ ID

ġ

Ĕ

22348

22631 22631 23415

9678 9678

21072 21072

8135 8135 9148

215a03.r1 Stratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:683436 6' similar to TR:6940370 G940370 1-AMINOCYCLOPROPANE-1-CARBOXYLATE SYNTHASE; 211603.r1 Stratagene NT2 neuronal precursor 837230 Homo sapiens cDNA clone IMAGE:563436 6' similar Human kappa-Immunoglobulin germline pseudogene (Chr22.4) variable region (subgroup V kappa II) to TR: G940370 G940370 1-AMINOCYCLOPROPANE-1-CARBOXYLATE SYNTHASE; qy32h07.x1 NCI\_CGAP\_Bm23 Homo saplens cDNA clone INAGE:2013757 3' similar to SW:MTA1\_HUMAN Q13330 METASTASIS-ASSOCIATED PROTEIN MTA1.; qy32h07.x1 NCI CGAP Brn23 Homo sapiens cDNA clone IMAGE:2013757 3' similar to Homo sapiens mRNA for doublesex and mab-3 related transcription factor 1 (DMRT1) Homo sapiens lethal glant larvae (Drosophila) homolog 2 (LLGL2), mRNA 602018058F1 NCI\_CGAP\_Brn67 Homo sapiens cDNA clone IMAGE:4153670 5 SW:MTA1\_HUMAN Q13330 METASTASIS-ASSOCIATED PROTEIN MTA1. CGAP Bm67 Homo sapiens cDNA clone IMAGE:4153670 Homo sapiens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA Novel human gene mapping to chomosome X, isoform of dbl (proto-oncogene) Homo sapiens gene for B120, exon 10 Homo sapiens thyroid hormone receptor interactor 11 (TRIP11), mRNA Top Hit Descriptor Homo sapiens phosphomannomutase 1 (PMM1), mRNA Homo saplens chromosome 21 segment HS21C049 Single Exon Probes Expressed in Bone Marrow 802018058F1 NCI products EST HUMAN NT EST\_HUMAN EST HUMAN EST\_HUMAN **EST\_HUMAN** EST\_HUMAN Top Hit Database Source 068.1 NT 11434816 NT 4505818 NT 11418187 NT 1.0E-123 AL163249.2 NT 1.0E-123 5803114 NT 11424218 Top Hit Acession 1,0E-122 M20707.1 1,0E-123 BF345274.1 1,0E-123 BF345274.1 1.0E-122 AL117234.1 1.0E-122 AB024068.1 1.0E-122 1143 1.0E-122 AA224259.1 1.0E-122 AA224259.1 1.0E-122|AI359618.1 AJ276801.1 1.0E-122|AI359618.1 ģ 1.0E-122 1.0E-122 1.0E-122 1.0E-123 **Jost Similar** (Top) Hit BLAST E Value 1.18 0.51 0.78 0.78 1.17 5.83 5.25 0.51 0.7 6.11 Expression Signal 34471 34472 36913 38255 38570 27219 26772 26773 35539 35780 36086 36087 ORF SEQ

24973

12102

24677

10493 11714 12228 13107 269 769

25063

14262 13828 13828

015

Page 468 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Origin Lyon Tobres Lypressed II Dolle Mallow	Top Hit Descriptor	AU118435 HEMBA1 Homo sapiens cDNA clone HEMBA1003591 5'	уявчаюз. r1 Scares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:202444 5' similar to SP:YAK1 YEAST P14680 PROTEIN KINASE YAK1	Human growth hormone releasing hormone gene, exon 7	Human hBRAVO/Nr-CAM precursor (hBRAVO/Nr-CAM) gene, complete cds	Homo sapiens heparan sulfate (glucosamine) 3-O-sulfotransferase 2 (HS3ST2), mRNA	Homo sapiens 2'-5'oligoadenylate synthetase 2 (OAS2), mRNA	601152815F1 NIH MGC 19 Homo sapiens cDNA clone IMAGE:3509162 5	yx89d11.r1 Soares melanocyte 2NbHM Homo saptens cDNA clone IMAGE.268917.5' similar to PIR:S49611 S9611 protein kinase PkpA - Phycomyces blakesleeanus;	yx89d11.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:268917 5' similar to PIR:S49611	C490 II protein nijase rkpA - rnycomyces plakesieeanus ;	ALIASARA NITORIO SEGURIS CONTA CIONE IN LA PROPERTION DE LI CANADA DE LA PROPERTION DE LA P	AU IS 1001 IN LIKE'S Home sapiens culve clone on IZRE3003409 5. ROA-RT0341-251400-042-07 BT0341 Home sapiens conv		Homo sapiens mRNA for KIAA0454 protein, partial cds	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha (Rabefla2) mRNA_complete cds	Homo sapiens lerky (mouse) homolog-like (JRKL), mRNA	602086791F1 NIH MGC 83 Homo saplens cDNA clone IMAGE:4250879 57	602086791F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4250879 5	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA	Homo sapiens DNA for amyloid precursor protein, complete cds	Homo sapiens chromosome 21 segment HS21C046	z81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL-REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT)	z81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POI =REVERSE TRANSCRIPTASE HOMAN OG IDETROMMEN ELEMENTE.	Human putative ribosomal protein S1 mRNA	Homo sapiens T-cell Ivmohoma invasion and metastasis 1 (TIAM1) mRNA	Homo saplens hypothetical protein (HSPC068), mRNA	Homo sapiens glucose transporter 3 gene, exans 9, 10, and complete cds	Homo sapiens glucose transporter 3 gene, exons 9, 10, and complete cds
Tepro: Line	Top Hit Database Source	EST_HUMAN	EST HUMAN	N	N <sub>T</sub>	ĮN	LN LN	EST_HUMAN	EST_HUMAN	TOT LIMAN	EST HIMAN	TOWN TO LOS	EST HIMAN		EZ.	L	F	T HUMAN	Г		Ä	INT	NT	EST_HUMAN		Т	¥	N		
26.10	Top Hit Acession No.	23 AU118435.1	1.0E-123 H53198.1	23 U42224.1	U55258.1	11525833 NT	11436439 NT	1.0E-123 BE263001.1	N35841.1	1 0E-133 N36841 1	A11434884 4		1.0E-123 AW371924 1	١	23 AB007923.1		4504806 NT	1.0E-123 BF677292.1		4507500 NT	1507500		3.2	1.0E-124 AA397551.1	1.0E-124 AA397551 1		4507500 NT	7705446 NT		1.0E-124 AF274892.1
	Most Similar (Top) Hit BLASTE Value	1.0E-123	1.0E-123	1.0E-123	1.0E-123 U55258.1	1.0E-123	1.0E-123	1.0E-123	1.0E-123 N35841.1	1 0E-123	1 0F-123	4 OF 423	10F-123	2 2	1.05-123	1.0E-123 U09823.1	1.0E-123	1.0E-123	1.0E-123	1.0E-124	1.0E-124	1.0E-124 D87675.1	1.0E-124	1.0E-124	1.0E-124	1.0E-124	1.0E-124	1.0E-124	1.0E-124	1.0E-124
	Expression Signal	1.97	0.83	1.24	0.57	0.0	1.29	1.87	0.71	0.74	0.5	2 5	143	200	2.03	31.72	0.44	5.3	5.3	1.18	1.18	0.79	211	8.04	8.04	90'9	1.34	4.34	12.68	12.68
	ORF SEQ ID NO:	32949	33554	33569		33955		34244	34419	34420	34826	34627	1700	20000	30200	36253		38499	38500	26288	26289		26485	26683	26684	26763	26816	26916	27352	27353
	Exon SEQ ID NO:	19671	2023					20856	21020	21020	1	1		L	70/77	22799	23293	24905	24905	13364	13364	13370	13559	13754	13754	13818	13867	13960	14384	14384
	Probe SEQ ID NO:	6613	7199	7212	7400	7632	7904	7913	8083	8083	8248	8248	888	0773	91.64	9863	10370	12029	12029	<b>568</b>	<b>5</b> 68	274	486	692	692	768	608 808	908	1349	1349

Page 469 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID 8 NO:	SEQ ID	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
1832	14859	27857	2.84	1.0E-124	AJ131712.1	NT	Homo sapiens mRNA for nucleolar RNA-helicase (noH61 gene)
2078	15093	28110	1.59	1.0E-124	1.0E-124 BE879524.1	EST_HUMAN	601491715F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3893964 5
2463	15467	28490	1.29	1.0E-124	1.0E-124 AB024069.1	TN	Homo sepiens gene for B120, exon 11
3502	16549	29476	0.81	1.0E-124 S78684.1	S78684.1	NT	Homo sapiens ATP-sensitive Inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, exon
3502	16549	29476		1.0E-124 S78684.1	578684.1	LN L	Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, exon
3915	16955	29867		1.0E-124	4507500 NT	TN	Homo sepiens T-cell lymphoma Invasion and metastasis 1 (TIAM1) mRNA
4102	17136	30031	98:0	1.0E-124	04116	NT.	Homo sapiens glutamate receptor, ionotropic, kalnate 1 (GRIK1) mRNA
4772	17792	30683	0.81	1.0E-124	1.0E-124 BE220437.1	EST_HUMAN	hv39c07.x1 NCI_CGAP_Lu24 Homo sapiens cDNA done IMAGE:3175/88 3'
4775	17795	30687	1.67	1.0E-124		NT	Homo sepiens gene for B120, exon 11
5370	18475	31348		1.0E-124		NT	Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA
6755	18849	32028			98290	TN	Homo sepiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA
5989	19074	32272				EST_HUMAN	602124644F1 NIH_MGC_56 Homo saplens oDNA clone IMAGE:4281635 6
6293	19365	32604	29.0		1.0E-124 AV711263.1	EST_HUMAN	AV711283 Cu Homo sapiens cDNA clone CuAADF07 6'
6572	19632	32899	0.78	1.0E-124	11420654 NT	TN	Homo sapiens ubiquitin specific protease 9, X chromosome (Drosophila fat facets related) (USP9X), mRNA
7208	20231	33564		1.0E-124 Y11717.1	Y11717.1	TN	M.muscullus mRNA for hoxa3 gene
7344	20315	33659		1.0E-124	1.0E-124 BE271295.1	EST_HUMAN	600943771F1 NIH_MGC_8 Homo saplens cDNA clone IMAGE:2966585 6
7344	20315	33660	1.04	1.0E-124	1.0E-124 BE271295.1	EST_HUMAN	600943771F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2966585 5'
7801	20753	34129	2.59	1.0E-124	1.0E-124 AA630331.1	EST_HUMAN	ac08h05.s1 Stratagene HeLa cell s3 937216 Homo saplens cDNA clone IMAGE:856897 3'
8128	21065	34464	1.78	١.	1.0E-124 M37277.1	ΤN	Human ig germline H-chain D-region genes, partial cds
8128	21065				1.0E-124 M37277.1	TN	Human Ig germline H-chain D-region genes, partial cds
8601	21569	34985	13.39		4506654 NT	NT	Homo sapiens ribosomal protein L5 (RPL5) mRNA
8808	21773	35198	1.25		1.0E-124 AW612106.1	EST_HUMAN	hg94a09.x1 NCI_CGAP_Kid11 Homo sepiens cDNA clone IMAGE;2963240 3' similar to TR:096162 095162 PEROXISOMAL SHORT-CHAIN ALCOHOL DEHYDROGENASE; ;
8000	24.7.72			1 OF-4	24 AW612106 1	EST HUMAN	hg94a09.x1 NCI_CGAP_Kid11 Homo saplens cDNA clone IMAGE:2953240 3' similar to TR:095162 095162 PEROXISOMAL SHORT-CHAIN ALCOHOL DEHYDROGENASE: ;
0847	22480			1.0E-1	1.0E-124 AI799864.1	EST HUMAN	wc43g03.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2321428 3'
9517	22480			1.0E-124	1.0E-124 AI799864.1	EST_HUMAN	wc43g03.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2321428 3'
9846	22782				1.0E-124 AV645633.1	EST_HUMAN	AV645633 GLC Hamo sapiens cDNA clone GLCACE04 3'
9846	22782					EST_HUMAN	AV645633 GLC Homo sapiens cDNA clone GLCACE04 3'
9937	22864			l.,		NT	Homo sapiens cep260 centrosome associated protein mRNA, complete cds
9937	22864				1.0E-124 AF022655.1	NT	Homo sapiens cep250 centrosome associated protein mRNA, complete cds
2966	22894	36356	8.08		1.0E-124 AI787133.1	EST_HUMAN	wie3f02.x1 NCI_CGAP_Kid12 Homo sapiens oDNA clone IMAGE:2400891 3'
2966	22894		8.08	1.0E-1	24 AI767133.1	EST_HUMAN	wi83f02.x1 NCI_CGAP_Kid12 Hamo sapiens cDNA clone IMAGE:2400891 3'

WO 01/57276

Page 470 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

				1662	1662	00482	00482						Γ							Ë		T	T	Γ	Γ	4
Top Hit Descriptor	UI-HF-BN0-akz-b-04-0-UI:r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078846 5'	Human muscle glycogen phosphorylase (PYGM) gene, exons 6 through 17	hj05c06.x1 Soares_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:2980906.3'	ti 9903.x1 NCL_CGAP_Gas4 Homo sepiens cDNA clone IMAGE:2141980 3' similar to TR:031662 031662 YKRS PROTEIN.;	1/19903.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141980 3' similar to TR:031682 O31682 YKRS PROTEIN ;	zt81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT) ;	z81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT);	Homo sapiens mRNA for KIAA1093 protein, partial cds	Homo sapiens calcineurin blndlng protein 1 (KIAA0330), mRNA	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA	Homo sapiens mRNA for KIAA1172 protein, partial cds	601577981F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926685 51	HA0086 Human fetal liver cDNA library Homo sapiens cDNA	HA0086 Human fetal liver cDNA library Homo sapiens cDNA	Homo sapiens ALR-like protein mRNA, partial cds	zk33c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X56867_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN);	Homo sapiens chromosome 21 segment HS21C010	Homo sapiens KIAA0744 gene product; histone deacetylase 7 (KIAA0744), mRNA	Homo sapiens KIAA0022 gene product (KIAA0022), mRNA	Homo saplens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein	(L44L) and FTP3 (FTP3) genes, complete cos Homo seniens Harminaliba mRNA complete cde	Homo sapiens Usuroth-aloha mRNA complete cds	201009 rt Scares fetal liver spieen 1NFLS St Homo sapiens cDNA clone IMAGE:429568 5'	Homo sadens inhibin, alpha (INHA) mRNA	Homo sapiens inhibin, alpha (INHA) mRNA	bb74f08.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3048131 5' similar to TR:O95604 O95604 ZINC FINGER PROTEIN.;
Top Hit Database Source	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	LN	Z	NT	N-	EST_HUMAN	EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	뒫	칟	NT	Ŧ	Z	FZ	FST HIMAN	L	N-	EST_HUMAN
Top Hit Acession No.	1.0E-124 AW 503755.1	194776.1	1.0E-124 AW665663.1	1.0E-124 AI446455.1	1446455.1	1.0E-124 AA397551.1	1.0E-124 AA397651.1		11417862 NT	17862		1.0E-125 BE743922.1		1.0E-125 AI110656.1	\F264750.1	1.0E-125 AA042813.1	1.0E-125 AL163210.2	7662279 NT	7661867 NT		,			4504696 NT	4504696 NT	1.0E-125 BE018009.1
Most Similar (Top) Hit BLAST E	1.0E-124	1.0E-124 U94776.1	1.0E-124 /	1.0E-124	1.0E-124 AI446455.1	1.0E-124 /	1.0E-124	1.0E-124	1.0E-124	1.0E-124	1.0E-125 /	1.0E-125	1.0E-125 A1110656.1	1.0E-125	1.0E-125	1.0E-125	1.0E-125 /	1.0E-125	1.0E-125	10 4	1.0E-125 078027.1	1 OF-125 /	1 0F-125	1.0E-125	1.0E-125	1.0E-125
Expression Signal	1.75	1.53	5.95	2.06	2.06	4.06	4.06	1.36	1.67	1.67	10.43	5.43	1.26	1.26	2.34	1.61	1.16	2.2	1.99	9	CO.1	2 84	1 78	1.19	1.19	1.19
ORF SEQ ID NO:	36645	37862	38169	37479	37480	26683	26684	31749	31436	31437		26019	26632	26633	26725	26875	27003	27148	27692	90000	27850	27853	28395	28626	28627	29001
Exon SEQ ID NO:		24333	24596	23956	23956	13754	13754	25383	25852	25852	13411	13121	13711	13711	13790	13917	14051	14198	15874	77077	14844	14855	15374	15604	15604	18311
Probe SEQ ID NO:	10230	11386	11660	11801	11801	12305	12305	12730	12993	12993	319	426	645	645	729	861	1000	1156	1682	100	1828	1828	2366	2604	2804	3022

WO 01/57276 PCT/US01/00668

Page 471 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

		,	_	_	_					_		_		_				_	_				_			_	
Top Hit Descriptor	zk53c07.s1 Soares_pregnant_uterus_NbHPU Homo saplens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN);	Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA	Homo saplens zinc finger protein ZNF287 (ZNF287), mRNA	601141152F1 NIH_MGC_9 Homo saplens cDNA clone IMAGE:3140796 5'	Homo sapiens KIAA0985 protein (KIAA0985), mRNA	QV2-HT0577-010500-165-b06 HT0577 Homo sapiens cDNA	601433472F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE;3918952 5'	ht67-07.xt NCI_CGAP_Gas4 Homo saplens cDNA clone IMAGE:2256108 3' similar to WP:C45G9.2 CE01854:	601305670F1 NIH MGC 39 Homo saplens cDNA clone IMAGE:3640097 5'	601335828F1 NIH MGC 44 Homo saplens cDNA clone IMAGE:3689790 5'	601335826F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3689790 5'	Homo sapiens IGF-II gene, exon 5	Homo sapiens IGF-II gene, exon 5	601159076F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3505603 5	Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA	Human chromosome 10 duplicated adrenoleukodystrophy (ALD) gene segment containing exons 8-10	Human chromosome 10 duplicated adrenoleukodystrophy (ALD) gene segment containing exons 8-10	QV1-HT0638-070500-191-d12 HT0638 Homo sapiems cDNA	QV1-HT0638-070500-191-d12 HT0638 Homo saplens cDNA	[bn62b03.x1 NCI_CGAP_Kld11 Homo saplens cDNA clone IMAGE:2171981 3' similar to TR:Q14089 Q14089 HYPOTHETICAL PROTEIN ;	601590345F1 NIH_MGC_7 Homo septens cDNA clone IMAGE:3944531 5'	Humen mRNA for KIAA0300 gene, partial cds	Homo sapiens I-REL gene, exon 5	X5902.X1 NO_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2622363 3' similar to TR:Q13284 Q13284 LAMBDA/IOTA PROTEIN KINASE CINTERACTING PROTEIN. [1];	X59902.X1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2622363 3' similer to TR:Q13284 Q13284   AAARDAA/OTA PROTEIN KINASE CANTERACTING PROTEIN 11:	Homo saplens mRNA for KIAA0667 protein, partial cds	Homo sapiens myosin, heavy polypeptide 1, skeletal muscle, adult (MYH1), mRNA
Top Hit Database Source	EST_HUMAN	TA	NT	EST_HUMAN	ΝΤ	EST_HUMAN	EST_HUMAN	HST HIMAN	EST HUMAN	EST HUMAN	EST_HUMAN		ΗZ	EST_HUMAN	TN	TN	ΕZ	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	뉟	N N	EST_HUMAN	EST LIMAN	NT	L
Top Hit Acession No.	25 AA042813.1	11425114 NT	11425114 NT	125 BE315412.1	11436448 NT	1.0E-125 BE175169.1	25 BE892660.1	25 41679904 1	25 BE736055.1	25 BE562526.1	25 BE562526.1	25 X03427.1	25 X03427.1	25 BE278823.1	11425572 NT	25 U90288.1	25 U90288.1	25 BE181640.1	25 BE181640.1	25 AI565996.1	25 BE794576.1	25 AB002298.1	25 AF043458.1	25 AW131202.1	25 0.14(131202 1	25 AB014567.1	7669505 NT
Most Similar (Top) Hit BLAST E Value	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1 OF-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	105	1.0E-125	1.0E-125
Expression Signal	1.11	1.86	1.86	1.66	1.47	1.01	3.58	0	0.68	1.29	1.29	5.05	5.05	1.04	0.54	0.99	0.99	12.5	12.5	0.93	0.65	0.74	2.54	1.97	101	2.99	2.06
ORF SEQ ID NO:		30498				32275		82828			33069					35278	35279	L	35876	36219					1,187.0		
Exon SEQ ID NO:		17602	ı	ĺ	19058	19078	19123	10166	19481	19789	19789	19998	19998	ı		21857	21857	22437	22437	22764		l.	24008		7007	24414	24559
Probe SEQ ID NO:	3872	4580	4580	4648	5973	5994	1409	808	6413	6733	6733	7263	7263	7775	8032	8891	8891	9473	9473	9736	10819	10860	11042	11124	444.04	11471	11621

Page 472 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

																				Γ											
Single Exon Probes Expressed in Bone Marrow	Top Hit Descriptor	Homo sapiens pdy(A) binding protein II (PABP2) gene, complete cds	RC3-ST0186-250200-018-c11 ST0186 Hamo sapiens cDNA	QV3-BT0569-020200-075-g09 BT0569 Homo sepiens cDNA	QV3-BT0569-020200-075-g09 BT0569 Homo sapiens cDNA	602139874F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4300770 5'	Homo sapiens CDC-ilke kinase (CLK) mRNA	H.sapiens gene for alpha1-antichymotrypsin, exon 3	Homo saplens hypothetical protein FLJ20048 (FLJ20048), mRNA	Homo sapiens hypothetical protein FLJ20048 (FLJ20048), mRNA	Homo sapiens RAN binding protein 2 (RANBP2), mRNA	zo72c03.r1 Stratagene pancreas (#937208) Homo saplens cDNA clone IMAGE:592420 5'	zo72c03.r1 Stratagene pancreas (#937208) Homo sapiens cDNA clone IMAGE:592420 5'	UI-H-BI4-ace-b-05-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084608 3'	UI-H-BI4-ace-b-05-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clane IMAGE:3084608 3'	H.saplens DNA for liver cytochrome b5 pseudogene	Homo sapiens death receptor 6 (DR6), mRNA	Homo sapiens collagen type XI alpha-1 (COL11A1) gene, exon 63	Homo sapiens collagen type XI alpha-1 (COL11A1) gene, exon 63	w78c06.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:267850 5/	ya52b12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:66527 3'	2x66e03.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA olone IMAGE:796444 6' similar to TR:G1145880 G1145880 T1TIN ;	Homo sapiens mRNA for KIAA1525 protein, partial cds	Homo saplens mRNA for KIAA1525 protein, partial cds	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds	AU136463 PLACE1 Homo sapiens cDNA done PLACE1004325 5'	wf08f01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2350009 3' similar to SW:MPP2_HUMAN Q14168 MAGUK P55 SUBFAMILY MEMBER 2;	Homo sapiens mRNA for KIAA1294 protein, partial cds	Homo saplens mRNA for KIAA1294 protein, partial cds	Human mRNA for ankyrin (variant 2.1)
xon Probes	Top Hit Database Source	F	EST_HUMAN	EST_HUMAN	EST_HUMAN	45.1 EST_HUMAN	님	LN	NT	LN LN	뉟	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	Z	Ę	Ę	۲N	EST_HUMAN	EST_HUMAN	EST_HUMAN	LZ	FZ	LN	FZ	EST_HUMAN	EST_HUMAN	TN	TN	L
Single	Top Hit Acession No.	25 AF026029.1.	25 AW812899.1	25 BE074267.1	25 BE074267.1	25 BF683645.1	4758007	26 X68735.1	8923056 NT	8923056 NT	6382078 NT	26 AA160709.1	26 AA160709.1	26 BF510408.1	8.1	26 X53941.1	7657038 NT	26 AF101108.1			26 T66998.1	26 AA460075.1	26 AB040958.1	26 AB040958.1	26 AF257737.1	26 AF257737.1	26 AU136463.1	26 AI806483.1	26 AB037715.1	5.1	26 X16609.1
	Most Similar (Top) Hit BLAST E Value	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-125	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1,0E-126	1.0E-126	1.0E-126	1.0E-126 >	1.0E-126	1.0E-126	1.0E-126	1.0E-126 N	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-126
	Expression Signal	£	1.68	4.32	4.32	1.48	6.16	0.8	0.91	0.91	1.41	7.58	7.58	1.02	1.02	0.75	2.09	1.15	1.15	1.38	0.71	3.23	3.5	3.5	0.98	0.98	0.64	99.0	0.92	0.92	4.9
	ORF SEQ ID NO:	38126	38192	38296	38297	32127	26780	26926	28383	28384	28628	29058	29059	29060	29061	29603	29626	30741	30742	30777	32061	32672	32739	32740	34061	34062	34299	34362	34587	34588	34703
	SEQ ID NO:	24564	24615	24713	24713	18942	13834	13974	15361	15361	15605	16145	16145	16146	16146	16688	16711	17843	17843	17889	18879	19429	19489	19489	20696	20696	20908	20968	21179		21289
	Probe SEQ ID NO:	11626	11729	11830	11830	12106	775	920	2352	2352	2605	3087	3087	3088	3088	3645	3668	4826	4826	4872	5787	6360	6422	6422	7742	7742	7969	8031	8210	8210	8320

Page 473 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

	MAN														LRA1),	LRA1),								R22						
Top Hit Descriptor	ne74b12.s1 NCI_CGAP_Ew1 Homo sepiens cDNA clone IMAGE:909983 similar to SW:TSG6_HUMAN P98066 TUMOR NECROSIS FACTOR-INDUCIBLE PROTEIN TSG-8 PRECURSOR;	Homo sapiens neuro-oncological ventral antigen 1 (NOVA1), splice variant 1, mRNA	602139138F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4298240 5'	601149404F1 NIH_MGC_19 Homo saplens cDNA clone IMAGE:3502129 5'	601577981F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926685 5'	Homo sapiens mRNA for casein kinase I epsilon, complete cds	Homo sapiens mRNA for casein kinase I epsilon, complete cds	Homo sapiens mRNA for casein kinase I epsilon, complete cds	Homo sapiens mRNA for casein kinase I epsilon, complete cds	Homo saplens DNA for amyloid precursor protein, complete cds	Homo sapiens DNA for amyloid precursor protein, complete cds	Homo sepiens intersectin short isoform (ITSN) mRNA, complete cds	Homo saplens lost on transformation LOT1 mRNA, complete cds	Homo sapiens ubiquitin specific protease 8 (USP8) mRNA	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1), mRNA	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1),	mRNA	Homo sapiens ribosomal protein L26 (RPL26) mRNA	Homo sapiens adilcan mRNA, complete cds	Human mRNA for cytokeratin 18	zx42a02.r1 Soares_total_fetus_Nb2HF8_9w Homo saplens cDNA clone IMAGE:789098 5'	zx42a02.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:789098 5'	Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds	au80e08.y/ Schneder fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782594 5' similar to TR:015170 015170 TRANSCRIPTION FACTOR S-II-RELATED PROTEIN contains element MER22	repetitive element;	Homo sapiens chromosome 21 segment HS21C047	Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA	Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA	Homo sapiens cytochrome P450 retinoid metabolizing protein P450RAI-2 mRNA, complete cds	Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products
Top Hit Database Source	EST_HUMAN	LN	EST_HUMAN	EST_HUMAN	EST_HUMAN	NT	NT	⊥N	LΝ	TN	FZ	±Ν	LN L	NT	ĻΝ		NT L	LN TN	TN	TN	EST_HUMAN	EST_HUMAN	LN		EST_HUMAN	L	TN	NT	NT	Ν
Top Hit Acession No.	AA483368.1	4505424 NT	BF683175.1	BE261660.1	BE743922.1	AB024597.1	AB024597.1	AB024597.1	AB024597.1	D87675.1	D87675.1	AF114488.1	U72621.2	4827053 NT	5803065 NT		5803065 NT	4506620 NT	AF246505.1	X12881.1	AA450131.1	AA450131.1	AF114488.1		AW161297.1	AL163247.2	TV06239 NT	7706239 NT	AF262297.1	4506384 NT
Most Similar (Top) Hit BLAST E Value	1.0E-128	1.0E-126	1.0E-126	1.0E-126	1.0E-126	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127		1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127		1.0E-127	1.0E-127	1.0E-127	1.0E-127	-	1.0E-127
Expression Signal	1.02	0.44	4.45	2.96	7.78	1.37	1.37	1.7	1.7	6.0	6.0	86.0	2.54	1.18	4.83		4.83	10.89	3.28	2.23	1.15	1.15	96.0		0.81	0.64	20.15	20.15	1.42	5.27
ORF SEQ ID NO:	34907	36555	37692	38315	31297		26202		26202	26296		26896	26925	27712			28114	28246	28380		28651	28652			29768	30159		30190		30541
Exan SEQ ID NO:	21492	23080	24162	24729	18352	13275	13275	13275	13275	13369	13369	13937	13971	14730	15097		15097	15225	15358	15615	15627	15627	16745		16864	17278	17311	17311	1 1	17654
Probe SEQ ID NO:	8524	10155	11208	11846	12786	173	173	174	174	273	273	882	917	1700	2080		2080	2210	2349	2617	2628	2628	3702		3824	4249	4282	4282	4523	4633

Page 474 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Γ		T	Τ	Γ		Γ		Τ	Γ	Τ	Τ	Τ	Π	Τ	Τ	Τ	Γ	Π	Τ	Τ	Τ	Τ	Γ	Γ	Π	Τ	Γ	Γ	Γ	Γ	Τ	П
	Top Hit Descriptor	Homo sapiens chromosome 21 segment HS21C068	Homo sapiens Ring1 and YY1 binding protein (RYBP), mRNA	za01a10.r1 Scares melanccyte 2NbHM Homo sapiens cDNA clone IMAGE:291258 5' similar to SW:PIP6 RAT P10688 1-PHOSPHATIDYLINOSITOL-4.5-BISPHOSPHATE PHOSPHODESTERASE	DELTA 1;	Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA	H.sapiens NOS2 gene, exon 6	H.saplens TCF11 gene, exon 3-6	Homo saplens integrin, beta 8 (ITGB8) mRNA	Homo sapiens immunoglobulin superfamily, member 3 (IGSF3), mRNA	Homo saplens reelin (RELN) mRNA	Homo sapiens Pendred syndrome (PDS), mRNA	Homo sapiens Pendred syndrome (PDS), mRNA	602151232F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4292575 5'	QV3-BN0046-150300-121-h11 BN0046 Homo sapiens cDNA	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA	Homo sapiens secretory pathway component Sec31B-1 mRNA, alternativaly spliced, complete cds	Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds	qm94h09.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1896449 3'	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA	Homo sapiens similar to heat shock 70kD, protein 9B (mortalin-2) (H. sapiens) (LOC63184), mRNA	Homo sapiens similar to heat shock 70kD protein 9B (mortalin-2) (H. sapiens) (LOC63184), mRNA	601434784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919917 5'	601434784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919917 5'	Homo sapiens Pendred syndrome (PDS), mRNA	Homo sapiens Pendred syndrome (PDS), mRNA	Homo saplens mRNA for caseIn kinase I epsilon, complete cds	Homo sapiens mRNA for casein kinase I epsilon, complete cds	Homo sapiens gene for AF-6, complete cds	Homo sapiens gene for AF-6, complete cds	601278127F1 NIH_MGC_20 Homo saplens cDNA clone IMAGE:3618822 5'
	Top Hit Database Source	L	LN		EST_HUMAN	IN	N	N	NT	N	Ę	N	F	EST HUMAN	EST_HUMAN	N	NT	TN	۲N	EST_HUMAN	NT	Į.	TN	EST_HUMAN	EST_HUMAN	LN	LN	NT	TN	L	TN	EST_HUMAN
	Top Hit Acession No.	1.0E-127 AL163268.2	6912639 NT		N03547.1	4826863 NT	(85764.1	(84060.1	4504778 NT	11421696 NT	4826977 NT	11421914 NT	11421914 NT	1.0E-127 BF671355.1	1.0E-127 AW996292.1	11427235 NT	11427235 NT	AF274863.1	1.0E-127 AF274863.1	1.0E-127 AI298932.1	11427236 NT	11417339 NT	11417339 NT	BE895415.1	1.0E-127 BE895415.1	11421914 NT	11421914 NT	7 AB024597.1	AB024597.1	AB011399.1	7 AB011399.1	1.0E-128 BE385617.1
	Most Similar (Top) Hit BLAST E Value	1.0E-127	1.0E-127		1.0E-127 W03547.1	1.0E-127	1.0E-127 X85764.1	1.0E-127 X84060.1	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127	1.0E-127		1.0E-127	1.0E-128
	Expression Signal	2.42	1.32		1,46	2.07	4.51	1.95	5.46	0.91	1.05	1.34	1.34	0.58	9.0	1.12	1.12	4.63	4.63	0.76	1.86	5.12	5.12	2.78	2.78	2.11	2.11	1.39	1.39	2.4	1.47	3.35
	ORF SEQ ID NO:		30614		32065	32100	32178	32594	32769	33168	33298	34400	34401	34413	34416	35637	35638	36390	36391	36646	37126	37983	37984	38423	38424			26201	26202	31775		26460
	Exon SEQ ID NO:		17721				18987	19358				21003	21003	21013	21016	22205	22205	22925	22925	23157	23630	24435	24435	24828	24828	21003	21003	13275	13275	25375	25856	13533
	Probe SEQ ID NO:	4663	4700		5791	5826	2900	6286	6454	6815	7264	9908	8066	8076	8079	9239	9239	9666	8666	10232	10708	11492	11492	11949	11949	12089	12089	12532	12532	12721	13062	460

Page 475 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exon Probes Expressed in Bone Marrow	Top Hit Descriptor	Homo sapiens chondroltin sulfate proteoglycan 2 (versican) (CSPG2) mRNA	Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA	Human FAU1P pseudogene, trinucleotide repeat regions	Human FAU1P pseudogene, trinucleotide repeat regions	Homo sapiens ribosomal protein S2 (RPS2) mRNA	Homo sapiens chromatin-specific transcription elongation factor, 140 kDa subunit (FACTP140), mRNA	Homo sapiens mRNA for KIAA1247 protein, partial cds	Homo sapiens prospero-related homeobox 1 (PROX1), mRNA	H.sapiens gene for infer-alpha-trypsin inhibitor heavy chain H1, exon 12	Homo sapiens phosphodiesterase 1C, calmodulin-dependent (70kD) (PDE1C), mRNA	7q86b10.x1 NCI_CGAP_Lu24 Homo saplens cDNA clone IMAGE: 3'	601503846F1 NIH_MGC_71 Homo saplens cDNA clone IMAGE:3905794 5'	602042322F1 NCI_CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4179988 5'	602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179988 5'	602042322F1 NCI_CGAP_Brn67 Homo saplens cDNA clone IMAGE:4179988 5'	Homo sapiens putative ABC transporter (WHITE2), mRNA	Homo sapiens mRNA for KIAA1636 protein, partial cds	Homo sapiens mRNA for KIAA1636 protein, partial cds	Homo sapiens mRNA for KIAA0454 protein, partial cds	Homo sapiens mRNA for KIAA0454 protein, partial cds	ns04a11.r1 NCI_CGAP_Ew1 Homo sapiens cDNA clone IMAGE:1182620 similar to TR:G951338 G95133 CHROMOSOME SEGREGATION GENE HOMOLOG CAS. ;	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2D (GRIN2D), mRNA	om68h08.s1 NCI_CGAP_GC4 Homo sapiens cDNA clone IMAGE:1552383 3' similar to gb:X54941 CYCL DEDENDENT KINASES PECTIL ATORY SHBI INIT 4 /HIMANN	Homo capiene mRNA for TRABID models (TRABID gene)	601277826F4 NIH MGC 20 Homo saniens cDNA clone MAGE:3618750 5	EST367360 MAGE resequences. MAGC Homo sapiens cDNA	inculis Bleadough forter bladies entein Duiman placents Conomic 1040 at comment 2 of 4]	insulin-line grown racio, pinding property (indiner), precental, certonile, 1019 in segment 2 of 4]	insulin-like growth factor binding protein-2 [human, placenta, Genomic, 1019 m, segment 2 of 4]	Novel human mRNA containing Zinc finger C2H2 type domains	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
xon Probes E	Top Hit Database Source	NT	NT	NT	NT	NT	Ā	NT	NT	LN	N	EST_HUMAN	EST_HUMAN	EST_HUMAN	<b>EST_HUMAN</b>	EST_HUMAN	NT	님	NT	NT	TN	EST HUMAN	N-	MANNILL FOR	NEW TOTAL	DOT LI INANI	EST HIMAN	-114	IN.	NT	N	NT
eiguis	Top Hit Acession No.	4758081 NT	4758081 NT	E-128 U02523.1	E-128 U02523.1	4506718 NT	11437455 NT	1.0E-128 AB033073.1	11426673 NT	E-128 X69539.1	11420965 NT	E-128 BF224345.1	)E-128 BE614105.1	E-128 BF529931.1	1.0E-128 BF529931,1	1.0E-128 BF529931.1	11545923 NT	1.0E-128 AB046856.1	E-128 AB046856.1	E-128 AB007923.1	E-128 AB007923.1	1.0E-128 AA639198.1	11425254 NT	A A A A A A A A A A A A A A A A A A A	E-128 AA920909.1	4 OF 420 DESPAATE 4	E-128 AWGRS90 1	002200	)E-129 53/722.1	E-129 S37722.1	E-129 AL096880.1	1.0E-129 AF240786.1
	Most Similar (Top) Hit BLAST E Value	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	1.0E-128	007	1.05-128	1.00	4 OF 128	201 101	1.05-129	1.0E-129	1.0E-129	1.0E-129
	Expression Signal	2.18	2.18	9.34	9.34	31.4	1.49	1.23	5.95	0.64	1.94	6.42	0.69	0.53	0.53	0.53	0.62	0.49	0.49	0.5	0.5	1.73	3.42	, ,	3.84	04.5	2.00 8 8	800	0.89	-	3.06	2.5
	ORF SEQ ID NO:	27150	27151	28117		28257		29377	60908	31879	32883		33986	34313	34314		34417				35282	36917				27607					27745	27750
	Exan SEQ ID NO:	14200	14200	15101	<u> </u>	15233	•	16454	17714	18720		[	20621	]	20922	ļ	21017	j	21076	21859	21859	J	,	<u> </u>	24035	L	L	L			14761	14766
	Probe SEQ ID NO:	1158	1158	2084	2084	2219	2451	3405	4693	5624	6558	7118	7661	7983	7983	7983	8080	8139	8139	8883	8893	10496	11065	10,	110/3	20077	12400	20,	122	413	1731	1736

WO 01/57276

Page 476 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exan SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
1736	14766	27751	2.5	1.0E-129	1.0E-129 AF240786.1	FZ	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
1863	14888	27885	2.86	1.0E-129	11418522 NT	Z	Homo saplens zinc finger protein 76 (expressed in testis) (ZNF76), mRNA
3145	16202	29113	1.33	1.0E-129 Q14585	Q14585	SWISSPROT	ZINC FINGER PROTEIN HZF10
3145				1.0E-129 Q14585	Q14585	SWISSPROT	ZING FINGER PROTEIN HZF10
3145	16202	29115	1.33	1.0E-129 Q14585	Q14585	SWISSPROT	ZINC FINGER PROTEIN HZF10
4192	17223	30112	1.87	1.0E-129	1.0E-129 AB040892.1	ΗZ	Homo sapiens mRNA for KIAA1459 protein, partial cds
							CMYA5 Human cardlac muscle expression library Homo sapiens cDNA clone 4151935 similar to CMYA5
4309	17338	30216	1.86	1.0E-129	1.0E-129 AW 755254.1	EST_HUMAN	Cardiomyopathy associated gene 5
4309	17338	30217	1.86	1.0E-129	1.0E-129 AW765254.1	EST HUMAN	CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4151935 similar to CMYA5 Cardiomyopathy associated gene 5
6210				1.0E-129	1.0E-129 AJ006345.1	F	Homo saplens KVLQT1 gene
6674	19731	33007		l	1.0E-129 BE88934.1	EST_HUMAN	6015/3861F1 NIH_MGC_71 Homo saplens cDNA clone IMAGE:3915350 5'
7334	20305	33649	4.07		1.0E-129 AJ006345.1	F	Homo saplens KVLQT1 gene
7396	20364	33716		1.0E-129	11420850 NT	۲	Homo saplens similar to ribosomal protein S26 (H. saplens) (LOC63694), mRNA
7771			0.78	1.0E-129	1.0E-129 AF041056.1	NT	Homo saplens WSCR4 gene, exons 3 and 4
1222	20724	34096	82'0	1.0E-129	1.0E-129 AF041056.1	ΙN	Homo sapiens WSCR4 gene, exons 3 and 4
8661			4.37	1.0E-129	1.0E-129 AB014534.1	ΝΤ	Homo sapiens mRNA for KIAA0634 protein, partial cds
10439	23361	09898	62'0	1.0E-129	11437282 NT	NT	Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA
10439	23361	36851	62'0	1.0E-129	11437282 NT	N	Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA
10878	23798	37299	0.48	1.0E-129	1.0E-129 AI199117.1	EST_HUMAN	qi40d08.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 MITOGEN INDUCIBLE GENE MIG-2 :
10878	23798	37300	0.48	1.0E-129	1.0E-129 A 199117.1	EST HUMAN	qi40d08.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 MITOGEN INDUCIBLE GENE MIG-2;
11557				1.0E-129	AA625526.1	26.1 EST_HUMAN	ar72/07.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1047589 5
11630	20364	33716	6.2	1.0E-129	1.0E-129 11420850	N-	Homo sapiens similar to ribosomal protein S28 (H. sapiens) (LOC63694), mRNA
12386	25164		4.21	1.0E-129	1.0E-129 H83155.1	EST_HUMAN	7q49c05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:199112 5' similar to SP:B48150 B48150 HP-25=HIBERNATION-RELATED PROTEIN - TAMIAS ASIATICUS=ASIAN;
12758	25401		2.63	1.0E-129	1.0E-129 AL120739:1	EST_HUMAN	DKFZp762K171_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762K171 5'
2.2					TN 0533077	N⊤	Homo sapiens hypothetical protein (HSPC242), mRNA
1174	14215		5.95		1.0E-130 AB037835.1	LN⊤	Homo sapiens mRNA for KIAA1414 protein, partial cds
1675		27685			1.0E-130 BE275192.1	EST_HUMAN	601121995F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346366 5'
1675	- 1				BE275192.1	EST_HUMAN	60/1/21995F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346366 5
2000	15021		3.15		1.0E-130 X04092.1	본	Human gene for catalase (EC 1.11.1.6) exon 9 mapping to chromosome 11, band p13

Page 477 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	Homo sapiens RET finger protein-like 1 antisense transcript, partial	601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 51	601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5	Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH) mRNA, complete cds	601343016F1 NIH_MGC_53 Homo saplens cDNA clone IMAGE:3685466 5'					RC0-CT0318-201199-031-a11 CT0318 Homo sapiens cDNA			CM0-CN0045-170200-225-g03 CN0045 Homo sapiens cDNA	CM0-CN0045-170200-225-g03 CN0045 Homo sapiens cDNA	Homo sapiens estrogen-responsive B box protein (EBBP), mRNA	Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLO6A7), mRNA	Homo sepiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds	Homo sapiens aurora-related kinase 1 (ARK1) mRNA, complete cds	EST368312 MAGE resequences, MAGD Homo sapiens oDNA	Homo sapiens mRNA for KIAA1335 protein, partial cds	xd36e06.xf NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2595874 3'	Homo sapiens glutamate receptor, metabotropic 5 (GRM5) mRNA	Homo sapiens RET finger protein-like 1 antisense transcript, partial	z58c04.r1 Soeres_NhHMPu_S1 Homo seplens cDNA clone IMAGE:667590 5' similer to TR:G222811 G222811 ALPHA 1 CHAIN OF TYPE XII COLLAGEN.;	258004.1 Soares_NhHMPu_S1 Home sapiens cDNA clone IMAGE:667590 5' sImilar to TR:G222811	Home serious checknint sumresser (CHESI) mRNA	Home seniors throughout the P. 20374 (FI. 199374) mRNA	Tround adjusts hypothetical procedure (1.555011), moves	Homo sepiens hypothetical protein FLJ20371 (FLJ20371), mRNA	Homo sapiens DCRR1 mRNA, partial cds	Homo sapiens DCRR1 mRNA, partial cds
Top Hit Database Source	LN	EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	NT	ĮN.	NT	닐	된	EST_HUMAN	NT	EST_HUMAN	IN	TN	EST_HUMAN	ENT HIMAN	L L	FZ	2	Ę.	Ę	ᅜ
Top Hit Acession No.	0 AJ010230.1	1.0E-130 BE564219.1	BE564219.1	1.0E-130 AF240698.1	1.0E-130 BE564219.1	1.0E-130 BE564219.1	5.1			1,0E-130 AW363299.1	99.1		1.0E-130 AW843875.1	1.0E-130 AW843875.1	11425446 NT	11416777 NT	1.0E-130 AF257737.1	1.0E-130 AF257737.1	1.0E-130 AF008551.1	1.0E-130 AW956242.1	1.0E-130 AB037756.1	1.0E-130 AW103454.1	4504142 NT	1.0E-130 AJ010230.1	0.0E+00 AA228126.1	0.05±00.05±00	ASSESS NT		1 N R#CC780	8923349 NT	0.0E+00 D83327.1	0.0E+00 D83327.1
Most Similar (Top) Hit BLAST E Value	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1,0E-130	1.0E-130	1.0E-130 X57825.1	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	1.0E-130	0.0E+00	001300	00.00	00.100	0.05+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	8.37	1.3	1.3	1.27	4.55	4.55	1.41	1	8.22	1.53	1.53	0.63	0.89	0.89	0.88	2.06	0.55	0.55	6.0	2.91	1.74	1.29	1.71	1.44	2.64	2 84	250	89.0	0.00	0.66	1.8	1.8
ORF SEQ ID NO:		28864		29556						31021	31022	33239	33433	33434	33452	33788		33895			35981		38489		26023		2002		١	١	١	26043
SEQ ID NO:	15773	15949		16636		15949	16997	17133		_		_	20120	20120		20432	20536	20536			22531	23218	24892	15773	13125	194.05	L	L	-1	- 1	- 1	13143
Probe SEQ ID NO:	2781	2890	2890	3591	3779	3779	3957	4099	4569	5133	5133	6891	6994	6994	7010	7466	7574	7574	8030	1416	9569	10293	12015	13046	4		r o	٩	2	16	ន	23

Page 478 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Probe SEO D NO: 29	Exon SEQ ID NO: 13149 13178 13186 13183 13188 13183 13	ς O	Signal Si	Most Simil (Top) Hit Palue Value 0.06+4 0	Top Hit Acession No. No. No. No. 47141349.1 488600.1 58860.1 5777151.2 5778804.1 578804.1 578804.1 578804.1 578804.1 578804.1 578804.1 578807.1 4768977 476897	Top Hit Database Source Source Source Source Source EST HUMAN EST HUMAN NT NT NT NT NT NT NT NT NT NT NT NT NT	Homo sapiens beta-lubulin mRNA, complete cds Human feganin cofactor II (HCP2) gene, axons 1 through 5 Homo sapiens RNA-binding protein 51, senie-dich domain (RNPS1), mRNA Homo sapiens RNA-binding protein 51, senie-dich domain (RNPS1), mRNA Homo sapiens RNA-binding protein 51, senie-dich domain (RNPS1), mRNA Homo sapiens mRNA for mutididug resistance protein 3 (ABCC3) HUMS16H08B Human placenta polyA+ (TFujiwara) Homo sapiens cDNA done GEN-516H08 67 HUM516H08B Human placenta polyA+ (TFujiwara) Homo sapiens cDNA done GEN-516H08 67 HUM516H08B Human placenta polyA+ (TFujiwara) Homo sapiens cDNA done GEN-516H08 67 HUM516H08B Human placenta polyA+ (TFujiwara) Homo sapiens cDNA done HBNSC_cr48e07 31 Human ribosomal protein L7 (RPL2) mRNA, complete cds or48e07.x1 Jils bore marrow stroma Homo sapiens cDNA done HBNSC_cr48e07 31 Human ribosomal protein L7 (RPL2) mRNA, complete cds or48e07.x1 Jils bore marrow stroma Homo sapiens cDNA done HBNSC_cr48e07 31 Human polyanis protein tyrosine phresphatase, non-receptor type substrate 1 (PTPNS1) mRNA Homo sapiens protein tyrosine phresphatase, non-receptor type substrate 1 (PTPNS1) mRNA Homo sapiens protein tyrosine phresphatase, non-receptor type substrate 1 (PTPNS1) mRNA Homo sapiens protein tyrosine phresphatase, non-receptor type substrate 1 (PTPNS1) mRNA Homo sapiens protein tyrosine phresphatase, non-receptor type substrate 1 (PTPNS1) mRNA Homo sapiens British det (ACTB) mRNA Homo sapiens eath, base (ACTB) mRNA Homo sapiens eath, base (ACTB) mRNA Homo sapiens eath and (ACTB) mRNA Homo sapiens eath and (ACTB) mRNA Homo sapiens eath and (ACTB) mRNA Homo sapiens eather and (ACTB) mRNA Homo sapiens eather and (ACTB) mRNA Homo sapiens eather and (ACTB) mRNA Homo sapiens eather and (ACTB) mRNA Homo sapiens eather and (ACTB) mRNA Homo sapiens eather and (ACTB) mRNA Homo sapiens eather and (ACTB) mRNA Homo sapiens eather base eather eathe
131	13236	26166			4505938 NT 4505938 NT	FZ	Homo sapiens polymerase (RNA) ii (DNA directed) polypeptide A (220kD) (POLR2A) mRNA Homo sapiens polymerase (RNA) ii (DNA directed) polypeptide A (220kD) (POLR2A) mRNA
141			0.65	0.0E+0	T56945.1	NT EST HUMAN EST HUMAN	Homo sapiens (gG Fc binding protein (FC(GAMMA)BP) mRNA ye83g04.r2 Stratagene fetal spleen (#837265) Homo sapiens cDNA clone (MAGE:68310 5' ya83g04.r2 Stratagene fetal spleen (#837205) Homo sapiens cDNA clone (MAGE:68310 5'

Page 479 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exen SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
154	13257		54.2	0.0E+00	4504444 NT	TN	Homo sapiens heterogeneous nuclear ribonucleoprotein A1 (HNRPA1) mRNA
158	13261	26188	4.4	0.0E+00	+00 BF036881.1	EST_HUMAN	601460375F1 NIH_MGC_66 Homo saplens cDNA clone IMAGE:3863803 5'
160	13263		39.14	0.0E+00	450444 NT	TN	Homo sapiens heterogeneous nuclear ribonucleoprotein A1 (HNRPA1) mRNA
163	13266	26191	0.92	0.0E+00	HO0 AF111168.2	TN	Homo sapiens serine palmitoy/ transferase, subunit II gene, complete cds; and unknown genes
165	13268		0.74	0.0E+00	+00 BE295973.1	EST HUMAN	601174270F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529864 5'
166	13268		1.17	0.0E+00	-00 BE295973.1	EST_HUMAN	601174270F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529864 5'
167	13269	26193	2.37	0.0E+00	400 W 73973.1	EST_HUMAN	2d82b05.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:346201 6' similar to gb:X16282_cds1 ZINC FINGER PROTEIN CLONE 647 (HUMAN);
168	13270	26194	98.0	0.0E+00	+00 BE162832.1	EST_HUMAN	QV3-HT0457-140200-088-d04 HT0457 Homo sapiens cDNA
188			ļ	0.0E+00	H00 BE162832.1	EST_HUMAN	QV3-HT0457-140200-088-d04 HT0457 Homo saplens cDNA
169	13271			0.0E+00	HO0 AF244088.1	LN	Homo sapiens zinc finger protein mRNA, complete cds
172	13274	26199	14.16	0.0E+00		NT	Homo saplens chromosome 21 segment HS21 C002
172	13274	26200	14.16	0.0E	+00 AL 163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
							bb24e12.y1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2963854 6' similar to WP;Y57A10A.Z
182	13282	26207	4.87	0.0E+00	00 BE018970.1	EST_HUMAN	ČE22631;
182	13282	26208	4.87	0.05+00	HOO BE 018970.1	EST HUMAN	bb24e12.y1 N!H_MGC_14 Homo sapiens cDNA clone IMAGE:2963854 5' similar to WP:Y57A10A.Z CE22631 :
187	1		4.35		-00 AB018327.1	LZ	Homo saplens mRNA for KIAA0784 protein, partial cds
187	13287	26212	4.35	0.0E+00	-00 AB018327.1	LN	Homo sapiens mRNA for KIAA0784 protein, partial cds
188				0.0E+00	-00 AB018327.1	LN L	Homo sapiens mRNA for KIAA0784 protein, partial cds
188	13288			0.0E+00	-00 AB018327.1	NT	Homo sapiens mRNA for KIAA0784 protein, partial cds
196	13297	26225	296.4	0.0E+00	-00 D50659.1	NT	Human gamma-cytoplasmic actin (ACTGP9) pseudogene
200	13301	26229	4.35	0.0E+00		IN	Homo saplens CTCL tumor antigen self4-3 mRNA, complete cds
200	13301	26230	4.35	0.0E+00		TN	Homo sapiens CTCL tumor antigen se14-3 mRNA, complete cds
202	13303		3.93	0.0E+00	-00 AF167174.1	NT	Homo sapiens chromosome X MSL3-2 protein mRNA, complete cds
202	13303	26233	3.93	0.0E+00	-00 AF167174.1	NT	Homo sapiens chromosome X MSL3-2 protein mRNA, complete cds
211	15835	26239	51.32	0.01	00 AI587308 1	EST HEMAN	tq04f08.xf NCL_CGAP_Ut3 Homo saplens cDNA clone IMAGE:2207847 3' similar to gb:J03191 PROFILIN {  {HUMAN}:
							though at NCI CGAP 11st Home earliers of DNA clone IMAGE: 2207847 3's similar to give 103404 DDCE!! IN I
211			51.32	0.0E+00	-00 AI587308.1	EST_HUMAN	Approximation of the control of the
213		26242	1.57	0.0E+00	+00 AF195858.1	NT	Homo saplens DNA mismatch repair protein (MLH3) gene, complete cds
216			43.74	0.0E+00	4506632 NT	NT	Homo sapiens ribosomal protein L31 (RPL31) mRNA
217	1		6.46	0.0E+00	-00 AF132000.1	NT	Homo sapiens TADA1 protein mRNA, complete cds
223	13323	26248	1.5	0.05+00	100 AB018264.1	NT	Homo saplens mRNA for KIAA0721 protein, partial cds

Page 480 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Excil Flobes Explessed ii Dolle Mallow	Top Hit Descriptor	Homo sapiens mRNA for KIAA0721 protein, partial cds	Mus musculus testis-specific protein, Y-encoded-like (Tspyl), mRNA	Homo sapiens NS1-associated protein 1 (NSAP1) mRNA	Homo sapiens chromosome 21 segment HS21C001	Homo sapiens chromosome 21 unknown mRNA	H. sapiens mRNA for interferon alpha/beta receptor (long form)	Homo sapiens chromosome 21 unknown mRNA	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA	Homo sapiens T-cell lymphoma Invasion and metastasis 1 (TIAM1) mRNA	Homo sapiens hypothetical protein (LOC51250), mRNA	Homo sapiens DCRR1 mRNA, partial cds	Homo sapiens DCRR1 mRNA, partial cds	Homo sapiens DCRR1 mRNA, partial cds	IL2-CT0031-181199-020-B03 CT0031 Homo sapiens cDNA	Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 15 (KCNJ15) mRNA	Homo saplens potassium inwardiy-rectifying channel, subfamily J, member 15 (KCNJ15) mRNA	Homo sapiens mRNA for KIAA1019 protein, partial cds	Homo sapiens mRNA for KIAA1019 protein, partial cds	Homo sapiens ribosomal protein S5 (RPS5) mRNA	Homo sapiens phosphoribosy/glycinamide formyltransferase, phosphoribosy/glycinamide synthetase, phosphoribosy/aminoimidazole synthetase (GART) mRNA	zv18c06.r1 Scares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:753994 5'	Homo sapiens SON DNA binding protein (SON) mRNA	Homo saplens SON DNA binding protein (SON) mRNA	Homo sapiens Intersectin short Isoform (ITSN) mRNA, complete cds	TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303)	TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303)	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA	Homo sapiens hormonally upregulated neu fumor-associated kinase (HUNK), mRNA	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA	Homo sapiens moesin (MSN), mRNA	Homo sapiens X-box binding protein 1 (XBP1) mRNA	Human zinc finger protein zíp31 (zí31) mRNA, partial cds
AUII FIODES EX	Top Hit Database Source	_				H		H				H			HOMAN			NT H	H		,	T HUMAN					SWISSPROT T						H
J alfillo	Top Hit Acession No.	00 AB018264.1	6678444 NT	6453805 NT		00 AF231919.1	00 X89772.1	00 AF231919.1	4507500 NT	4507500 NT	7706028 NT				00 AW845293.1	4557029 NT	4557029 NT			0.0E+00 4506728 NT	4503914 NT	30 AA480002.1	4507152	4507152 NT	38.1			7657213 NT	7657213 NT	5174574 NT	4505256 NT	4827057 NT	00 U71600.1
-	Most Similar (Top) Hit BLAST E Value	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 D83327.1	0.0E+00 D83327.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 O14887	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	1.81	3.11	3.14	6.19	3.48	2.06	9.67	1.2	1.2	3.56	1.55	1.75	1.75	86.0	7.75	7.75	3.68	15.06	12.15	0.8	1.85	23.16	22.55	1.76	2.84	2.84	4.94	1.14	0.86	2.48	3.07	1.24
	ORF SEQ ID NO:	26248	26249	26264		26269	26272		26290	26291	26293		28306	26307		26314	26315	26325	26326		26327		26328		26332		26342	26343	26343	26355	26356	26360	26365
	Exon SEQ ID NO:	13323	13324				13346				13367	l	13378	13378	13379	13387	13387	13398	13399	15838	13400						13418	13419	13419	13433	13434	13437	13440
	Probe SEQ ID NO:	224	225	239	240	247	249	257	269	569	271	282	283	283	284	293	283	304	305	306	307	308	309	310	314	327	327	328	329	344	345	348	351

WO 01/57276

Page 481 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

	Top Hit Descriptor	Homo sapiens chromosome 21 unknown mRNA	Homo sapiens chromosome 21 unknown mRNA	Homo sapiens chromosome 21 unknown mRNA	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA	Homo saplens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA	Human mRNA for KIAA0184 gene, partlal cds	Human mRNA for KIAA0184 gene, partial cds	Homo sapiens T-cell lymphoma Invasion and metastasis 1 (TIAM1) mRNA	AU134963 PLACE1 Homo sapiens cDNA clone PLACE1000899 5'	Homo sapiens mRNA for KIAA1019 protein, partial cds	qy81h05.x1 NCI_CGAP_Bm26 Homo sapiens cDNA clone IMAGE:2018457 3' similar to gb:X54199 PHOSPHORIBOSYLAMINE-CLYCINE LIGASE (HUMAN);	RC2-CT0320-300100-016-a09 CT0320 Homo sapiens cDNA	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA	Homo saplens IgG Fc binding protein (FC(GAMMA)BP) mRNA	Homo saplens (gG Fc binding protein (FC(GAMMA)BP) mRNA	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA	Homo saplens IgG Fc binding protein (FC(GAMMA)BP) mRNA	Homo saplens IgG Fc binding protein (FC(GAMMA)BP) mRNA	Homo saplens IgG Fc binding protein (FC(GAMMA)BP) mRNA	lomo saplens IgG Fc binding protein (FC(GAMMA)BP) mRNA	H.saplens gene for RNA pol II largest subunit, exons 23-29	H.sapiens gene for RNA pol II largest subunit, exons 23-29	H.sapiens gene for RNA pol II largest subunit, exons 23-29	H.saplens gene for RNA pol II largest subunit, exons 23-29	Homo sapiens ribosomal protein L19 (RPL19) mRNA	yg09a02.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31662 5'	Homo saplens phosphoribosyglycinamide formyltransferase, phosphoribosylglycinamide synthetase,	phosphoribosylaminoimidazole synthetase (GART) mRNA	Homo sapiens ribosomal protein S5 (RPS5) mRNA	Homo sapiens mRNA for KIAA1019 protein, partial cds	Homo saplens SON DNA binding protein (SON) mRNA	Homo saplens SON DNA binding protein (SON) mRNA	Mus musculus truncated SON protein (Son) mRNA, complete cds
200011100	Top Hit Database Source	F	TN	LN-			LN	IN		EST_HUMAN		EST HUMAN		L									NT.	L	LN		EST_HUMAN							L
28.00	Top Hit Acession No.			0.0E+00 AF231919.1	4507500 NT	4503854 NT		E+00 D80006.1	4507500 NT		0.0E+00 AB0289421			0.0E+00 4503680	4503680 NT	E+00 X74870.1	E+00 X74870.1	E+00 X74870.1	E+00 X74870.1	4506608 NT	E+00 R17795.1		4503914 NT	4506728 NT		4507152 NT	0.0E+00 4507152 NT							
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00)	0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.05+00
	Expression Signal	2.54	2.54	2.87	0.87	6.0	1.91	1.41	0.63	2.41	7.69	2.78	2.89	1.3	2.24	2.24	1.22	1.27	1.27	3.09	0.67	2.69	2.69	2.37	2.37	25.89	1.44		2.15	15.71	1.89	3.68	3.68	4.53
	ORF SEQ ID NO:	26369		L		26376		26377		26390	26433	26434		26400	26401		26403							26408	26409		26013		26435					26439
	Exen SEQ ID NO:	13444		15839	13446	13448				L	13500	13501	13467	13469	اا			L.		Lı	13474	13475	13475	13475	13475	13479	13115	l_		13503		13505		13506
	Probe SEQ ID NO:	356	356	357	359	361	362	363	365	376	387	388	392	395	396	386	397	398	398	399	400	401	401	402	402	406	420		428	429	430	431	431	432

Page 482 of 546 Table 4

Single Exon Probes Expressed in Bone Marrow	Most Similar Top Hit Acession (Top) Hit Top Hit Acession Signal BLASTE No. Source	+00 AL16320	0.0E+00 4557879 NT	0.75 0.0E+00 AA324262.1 EST HUMAN EST27054 Cerebellum II Homo sapiens cDNA 5' end	T_HUMAN	3.47 0.0E+00 4504532 NT Homo saplens 5-hydroxytryptamine (serotonin) receptor 1B (HTR1B) mRNA	3.47 0.0E+00 4504532 NT Homo sapiens 5-hydroxydryptamine (serotonin) receptor 1B (HTR1B) mRNA			0.0E+00 AL163246.2	0.0E+00 AL163246.2	0.0E+00 AL163246.2 NT	-00 AB033035.1 NT	0.0E+00 AU132898.1   EST_HUMAN	0.0E+00 BE385144.1  EST_HUMAN	-00 AW938825.1	0.0E+00 AL117233.1 NT	0.0E+00 8923955 NT	0.0E+00 BF373403.1	0.0E+00/AL163210.2	0.0E+00 BE081527.1  EST_HUMAN	0.0E+00 BF028005.1   EST_HUMAN	0.0E+00 AB04090	+00 6006030 NT	0.0E+00 4504036 NT	0.0E+00 4504036 NT	0.99 0.0E+00 6923831 NT Homo sapiens anillin (LOC54443), mRNA	0.0E+00 8923831 NT	1.2 0.0E+00 8923831 NT Homo sapiens anillin (LOC54443), mRNA	LN.	0.0E+00 AW135324.1		Homo sapiens ubiquinol-cytochrome c reductase, Rieske iron-sulfur polypeptide 1 (UQCRFS1), nuclear gene 272 0.0E+00 5174742 NT encoding mitochondrial protein, mRNA
	温 = 田	0.0E+00 AL	0.0E	30.0	0.0E	90'0	00+30'0	0.0E+00		90.0			0.0E	0.0	0.0E	0.0E+00 AV	90.0	∃0.0	90.0	-30′0	∃0.0	0.0E+00 BF	0.0 E	0.0E	0.0E	0.0E	0.0E	90.0	90.0E	0.0E	0.0E	0.0E+00 D	0.0E
	Expression Signal	1.27	6.45	0.75	1.25	3.47	3.47	2.84	2.84	2.68	6.81	6.81	3.92	1.83	1.58	1.88	1.47	0.9	0.82	5.32	1.15	1.61	2.23	10.84	4.46	4.46	0.99	1.2	1.2	5.14	1.55	2.54	2.72
	ORF SEQ ID NO:		26452			26466	26467		26476	26482				26491	26497	26498	26500	26501		26511	26515	26521	26528	26531				26536			26546		26571
	SEO ID NO:	13517	13519	13524	13525	13541	13541	13546	13646	13557	13558	13558	13566	13568	13578	15842	13579	13580	13584	13591	15843	13603	13609	13612	13613	13613	13615	13616	13616	13620	13628	13638	13656
	Probe SEQ ID NO:	444	446	451	452	468	468	474	474	484	485	485	494	496	204	505	508	509	513	520	527	532	238	541	245	245	544	545	545	920	228	999	588

Page 483 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 484 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	Human von Willebrand factor gene, exons 23 through 34	Human von Willebrand factor gene, exons 23 through 34	Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA	Homo sapiens ALR-like protein mRNA, partial cds	Homo sapiens ALR-like protein mRNA, partial cds	Homo sapiens hypothetical protein FLJ21634 (FLJ21634), mRNA	TCAAP1D0779 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo	sapiens cDNA clone I CAAP0779	Homo sapiens MHC class I antigen (HLA-G) mRNA, HLA-G1 allele, complete cds	Homo saplens MHC class I antigen (HLA-G) mRNA, HLA-G1 allele, complete cds	Human, plasminogen activator inhibitor-1 gene, exons 2 to 9	Human, plasminogen activator Inhibitor-1 gene, exons 2 to 9	Homo sapiens mRNA for KIAA1339 protein, partial cds	Homo sapiens zinc finger protein 212 (ZNF212), mRNA	Homo sapiens mRNA for repressor protein, partial cds	601445647F1 NIH_MGC_65 Homo sapiens cDNA clone IMA GE:3849803 5'	yj69g08.r1 Scares breast 2NbHBst Homo sapiens cDNA clone IMAGE:154046 5'	Homo sapiens splicing factor 3a, subunit 1, 120kD (SF3A1), mRNA	Homo sapiens gene for AF-6, complete cds	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA	Human mRNA for KIAA0184 gene, partial cds	Human mRNA for KJAA0184 gene, partial cds	H.sapiens mRNA for interferon alpha/beta receptor (long form)	Homo sapiens mRNA for KIAA0910 protein, partlal cds	Homo sapiens mRNA for KIAA0910 protein, partial cds	Hamo sapiens pericentrin (PGNT) mRNA	Homo saplens T-cell lymphoma Invasion and metastasls 1 (TIAM1) mRNA	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA	Homo sapiens potassium voltage-gated channel, isk-related family, member 1 (KCNE1) mRNA	Homo saplens serine threonine protein kinase (MNBH) mRNA, complete cds	Homo saplens serine-threonine protein kinase (MNBH) mRNA, complete cds	Homo sapiens serine threonine protein kinase (MNBH) mRNA, complete cds	Homo saplens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA
Top Hit Database Source		T I			F			HOMAN				Z				EST_HUMAN 6	T HUMAN						IN TN	IN	NT IN						I I	II II		
Top Hit Acession No.		+00 M60675.1	032192	-00 AF264750.1	-00 AF264750.1	11545800 NT		1	+00 AF226990.2			-00 J03764.1		6912749 NT		Γ	0.0E+00 R48915.1	32086	AB011399.1 NT	0.0E+00 7661965					0.0E+00 AB020717.1	5174478 NT	4507500 NT	7657213 NT	7657213 NT	37686	0.0E+00 AF108830.1			+00 4503854 NT
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	4.91	4.91	2.21	4.69	4.69	11.38		2.31	2.09	2.09	. 0.88	0.88	2.01	0.86	3.03	1.78	3.68	2.14	1.88	2.77	2.38	2.38	2.72	3.38	3.38	10,76	9.93	1.58	2.57	1.82	3.12	3.12	1.34	2.16
ORF SEQ ID NO:			26720	26726	26727	26730				26762	26764	26765	26766	26767	26769	26770		26775		26787	26799	26800	26804	26808	26809	26815					26845			26852
Exon SEQ ID NO:		13776		13791	13791	13793	ł .	ı	13817	13817	13819	13819	13822	13823	1_	13825	13829			L		13852	13857	13861	13861		13866		13884	L	13891			13897
Probe SEQ ID NO:	714	714	724	730	730	732		738	757	757	759	759	762	763	765	766	770	771	779	782	793	793	798	802	802	807	808	825	826	828	834	834	835	840

Page 485 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
448	13900	26857		0.0E+00	4507500 NT	FZ	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
844	13900	26858	1.23	0.0E+00	4507500 NT	LN	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
851	13907			0.0E+00	+00 AF027153.1	NT	Homo sapiens sodium/myo-inositol cotransporter (SLC5A3) gene, complete cds
855	13911	26869		0.0E+00		NT	Homo saplens mRNA for KIAA1019 protein, partial cds
855	13911	26870		0.0E+00	+00 AB028942.1	TN	Homo sapiens mRNA for KIAA1019 protein, partial cds
856	13912	26871	10.69	0.0E+00	4507152 NT	LN	Homo saplens SON DNA binding protein (SON) mRNA
857			4.54	0.0E+00	0.0E+00 AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
858			14.11	0.0E+00	4506728 NT	NT	Homo sapiens ribosomal protein S6 (RPS5) mRNA
862	13918	26876		0.0E+00		LN	Homo sapiens mRNA for KIAA0910 protein, partial cds
862	13918	26877	1.18	0.0E+00		TN	Homo sapiens mRNA for KIAA0910 protein, partial cds
863	13919		1.8	0.00+00		EST_HUMAN	nj66d07.s1 NCI_CGAP_Pr10 Homo sapiens cDNA clone IMAGE:997453
863	13919		1.8	0.0E+00		EST_HUMAN	nj66d07.s1 NCI_CGAP_Pr10 Homo sapiens cDNA clone IMAGE:997453
864	Į			0.0E+00		EST_HUMAN	602085579F1 NIH_MGC_83 Homo saplens cDNA clone IMAGE:4249915 5'
888	13924		1.57	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
868	13924				7657213 NT	LN	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
698	13925		1.95			LN	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
869	13925			0.0E	7657213 NT	LN	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
892	13947	56906		0.0E		NT	Homo sapiens chromosome 21 segment HS21C003
889	13954			0.0E		EST_HUMAN	QV0-BT0703-280400-211-g11 BT0703 Homo saplens cDNA
888	13954	26912		9.0	+00 BE089592.1	EST_HUMAN	QV0-BT0703-280400-211-g11 BT0703 Hamo sapiens cDNA
808	13964			9.0E	+00 AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
919	13973		63.74			LN	Homo saplens laminin receptor 1 (67kD, ribosomal protein SA) (LAMR1), mRNA
921	13973		24.73	0.0E+00	4504958 NT	NT	Homo saplens laminin receptor 1 (67kD, ribosomal protein SA) (LAMR1), mRNA
922	13975	26927	0.71	0.0E+00	+00 AF089747.1	LN-	Homo sapiens alpha-1-antichymotrypsin precursor, mRNA, parttal cds
923	13976			0.0E+00		NT	Homo sapiens kallistatin (P14) gene, exons 1-4, complete cds
925	13978			0.0E+00	+00 220656.1	LN	Homo sapiens of cardiac alpha-myosin heavy chain gene
926	13978	L				LN	Homo saplens of cardiac alpha-myosin heavy chain gene
976	13979	L		0.0E	+00 Z20656.1	IN	Homo sapiens of cardiac alpha-myosin heavy chain gene
926	13979			9.0E		LN	Homo sapiens of cardiac alpha-myosin heavy chain gene
946	13999			0.0E		FN	Homo sapiens mRNA for KIAA0994 protein, partial cds
946	13999			0.0E	.1	LN	Homo sapiens mRNA for KIAA0994 protein, partial cds
952	14005			0.0E+00		LN-	Human ras inhibitor mRNA, 3' end
953	14006	26958	8.74	0.0E+00		FZ	Human ras inhibitor mRNA, 3' end
954	14007			0.0E+00	+00 M37190.1	⊢Z.	Human ras inhibitor mRNA, 3' end

Page 486 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exon Probes Expressed in bone Marrow	Top Hit Descriptor	Homo saplens thyrotrophic embryonic factor (TEF), mRNA	Homo sapiens thyrotrophic embryonic factor (TEF), mRNA	os98e03.s1 NCi_CGAP_GC3 Homo saplens cDNA clone IMAGE:1613404 3'	os98e03.s1 NCI_CGAP_GC3 Homo sapiens cDNA clone IMAGE:1613404 3'	Homo sapiens KIAA0929 protein Msx2 Interacting nuclear target (MINT) homolog (KIAA0929), mRNA	Homo sapiens mRNA for PSP24, complete cds	PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA	PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA	PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA	Homo saplens partial c-fgr gene, exons 2 and 3	Homo saplens partial c-fgr gene, exons 2 and 3	Homo sapiens chromodomain protein, Y chromosome-like (CDYL) mRNA	Human beta-tubulin (TUB4q) gene, complete cds	Human beta-tubulin (TUB4q) gene, complete cds	Human beta-tubulin (TUB4q) gene, complete cds	Homo saplens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds	Homo saplens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene	Homo saplens DKFZP586M0122 protein (DKFZP586M0122), mRNA	Homo saplens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA	aa86g07.s1 Stratagene fetal retina 937202 Homo saplens cDNA clone IMAGE:838236 3' similar to SW:PRS8_HUMAN P47210 26S PROTEASE REGULATORY SUBUNIT 8 ;	EST51124 WATM1 Homo sapiens cDNA clone 51124 similar to DNA-DIRECTED RNA POLYMERASE II	(alignment Ser and Pro with BLASTx or p)	EST51124 WATM1 Homo sapiens cDNA clone 51i24 similar to DNA-DIRECTED RNA POLYMERASE II	(alignment Ser and Pro with BLASTx or p)	Homo saplens TRAF family member-associated NFKB activator (TANK) mRNA	Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA	Homo sapiens hypothetical protein FLJ1196 (FLJ11196), mRNA	Homo sapiens heat shock 70kD protein 9B (mortalin-2) (HSPA9B) mRNA
xon Propes t	Top Hit Database Source	TN.	FN	EST_HUMAN	EST_HUMAN	LN L	LN LN	EST_HUMAN	EST_HUMAN	EST_HUMAN	ΝΤ	TN	۲	FZ	NT	NT	LΝ	TN	LN LN	LN	LΝ	۲N	TN	LN	EST HUMAN		EST_HUMAN		EST HUMAN	LNT	LN	LN	LN.
Single	Top Hit Acession No.	4507430 NT	4507430 NT	0.0E+00 AI001948.1	0.0E+00 A1001948.1	7657266 NT	30 AB030566.1	10 BF366974.1		0.0E+00 BF366974.1		00 X52207.1	4757969 NT	J83668.1	JO U83668.1	J83668.1	0.0E+00 AF198490.1	0.0E+00 AF198490.1	4F111170.3	0.0E+00 AF111170.3	30 AF111170.3	0.0E+00 AF111170.3	7661685 NT	5803114 NT	0.0E+00 AA458680.1		N43182.1		V43182.1	4759249 NT	4759249 NT	8922933 NT	4758569 NT
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00/	0.0E+00 /	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00 X52207.1	0.0E+00	0.0E+00	0.0E+00 U83668.1	0.0E+00	0.0E+00 U83668.1	0.0E+00/	0.0E+00	0.0E+00	0.0E+00/	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00 N43182.1		0.0E+00 N43182.1	0.0E+00		0.0E+00	0.0E+00
	Expression Signal	0.83	0.83	2.24	2.24	10.17	2.04	1.86	1.86	1.86	3,55	3.55	2.25	1.17	13.38	10.52	2.58	5.29	1.28	1.82	1.71	1.65	2.42	1.21	1.58		0.76		0.76	1.2	1.2		2.4
	ORF SEQ ID NO:		26961	26968	26969	126921	26981			26989		2693	27000			27009			27015				27019				27027			27029			27046
	Exon SEQ ID NO:	14008	14008	15855	15855	14017	14027	14035	14035	14035	14037		14046	14056	14057	14057	14060	14060	14064	14064	14064	14065	14068	14072	14073	L	14076		14076	14077		14080	14095
	Probe SEQ ID NO:	955	926	963	963	965	976	984	984	984	986	986	995	1006	1007	1008	1011	1012	1016	1017	1018	1019	1022	1026	1027		1030		1030	1031	1031	1034	1049

Page 487 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

1		т-	$\overline{}$	Т	$\overline{}$	_	Τ	т	1	T	_	1	т	1	7	т	т-	т-	_	т	_	7	т-	_	_	т-	_	_	_	_	_	_	т-	_	_
כיופור באנדו וכבינה באבונים באבונים אימונים  Top Hit Descriptor	Homo saplens cadherin 6, K-cadherin (fetal kidney) (CDH6) mRNA	Homo sapiens cadherin 6, K-cadherin (fetal kidney) (CDH6) mRNA	Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA	Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA	Homo saplens mRNA for alpha-tubulin 8 (TUBA8 gene)	Homo saplens hypothetical protein FLJ20080 (FLJ20080), mRNA	Homo sapiens alkylation repair; alkB homolog (ABH), mRNA	Homo sapiens Death associated protein 3 (DAP3) mRNA	MR0-BN0115-200300-003-h08 BN0115 Homo sapiens cDNA	Homo sapiens potassium channel, subfamily K, member 9 (KCNK9), mRNA	Homo sapiens potassium channel, subfamily K, member 9 (KCNK9), mRNA	Homo sapiens protein kinase, X-linked (PRKX) mRNA	Homo sapiens protein kinase, X-linked (PRKX) mRNA	Homo saplens ribosomal protein S27a (RPS27A) mRNA	Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA	Homo sapiens DNA for Human P2XM, complete cds	Homo sapiens DNA for Human P2XM, complete cds	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA	Homo sapiens Npw38-binding protein Npw8P (LOC51729), mRNA	H. sapiens ART4 gene	H. sapiens ART4 gene	qb22d10.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1697011 3'	Homo sapiens mRNA for KIAA0903 protein, partial cds	Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA	Homo sapiens chandroltin sulfate proteoglycan 2 (versican) (CSPG2) mRNA	Homo saplens chromosome 12 open reading frame 3 (C12ORF3), mRNA	Homo sapiens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD25, mRNA	Homo saplens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD25, mRNA	Homo saplens mRNA for KIAA1414 protein, partial cds	Homo sapiens keratin 18 (KRT18) mRNA	Homo saplens Na+/H+ exchanger Isoform 2 (NHE2) mRNA, complete cds	Homo sapiens mutt. (E. coli) homolog 3 (MLH3), mRNA	Homo sapiens ALR-like protein mRNA, partial cds	
2001	Top Hit Database Source	N	Ę	LZ LZ	LN	LN	Z	Z	E	EST_HUMAN	Ä	Z	IN.	۲N	. LN	F	L	LN	N	ΤN	N-	LN	NT	EST HUMAN	NT	NT	NT	LN	TN	LN	NT	7	NT	NT	NT
2.6110	Top Hit Acession No.	4826672 NT	4826672 NT	8923624 NT	8923624 NT	+00 AJ245922.1	8923087 NT	5174384 NT	4758117 NT	+00 BE005208.1	7706,134 NT	7706134 NT	4826947 NT	4826947 NT	4506712 NT	8923290 NT		-00 AB002059.1	7657468 NT	7657468 NT	7706500 NT	+00 X95826.1			-00 AB020710.1	4758081 NT	4758081 NT	9966844 NT	7305076 NT	7305076 NT	0.0E+00 AB037835.1	4557887 NT	0.0E+00 AF073299.1	57336	-00 AF264750.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 AI147650.1	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00/
	Expression Signal	2.13	2.13	3.18	3.18	28.45	0.82	3.85	1.91	2.62	5.54	5.54	0.98	96.0	33.54	2.34	8.07	20.89	5.23	5.23	1.84	0.76	0.76	1.25	1.68	3.19	3.19	0.89	8.26	8.26	1.08	1.21	0.64	1.24	1.18
	ORF SEQ ID NO:	27060	27061		27066				27082	27092	27116	27117	27127	27128	27129	27131	27134	27135	27136	27137	27140	27141	27142	27143	27145	27154	27155	27156	27167	27168	27171	27180	27191		27225
	Exon SEQ ID NO:	14111	14111	14115	14115	14116	14118	14120	14128	14142	14165	14165	14177	14177	14178	14180	14183	14185	14186	14186	14189	14190	14190	14191	14193	14202	14202	14203	14213	14213	14216	14223	14236	14252	14268
	Probe SEQ ID NO:	1066	1066	1070	1070	1071	1073	1075	1084	1098	1121	1121	1134	1134	1135	1137	1140	1142	1143	1143	1147	1148	1148	1149	1151	1160	1160	1161	1172	1172	1175	1182	1196	1214	1230

Page 488 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

	iptor					a-associated) (CSPG4), mRNA				vt 9 (WBSCR9) mRNA, complete cds						gene, exon 5	DR1), mRNA	OR1), mRNA								A	A		6	: IMAGE:1837427 3' similar to WP:T27A1.5		emher RAS oncovene femily/BAN) mRNA	PCSK2) mRNA	PCSK2) mRNA
Origic Exota Force Expressed III Doile Mailow	Top Hit Descriptor	Homo sapiens ALR-like protein mRNA, partial cds	Homo sapiens ALR-like protein mRNA, partial cds	Homo sapiens ALR-like protein mRNA, partial cds	Homo sapiens chromosome 3 subtelomento region	Homo saplens chondroltin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA	Homo sapiens prefoldin 4 (PFDN4) mRNA	Homo sapiens NF2 gene	Homo sapiens ribosomal protein S2 (RPS2) mRNA	Homo sapiens Williams-Beuren syndrome deletton transcript 9 (WBSCR9) mRNA, complete cds	Homo saplens mRNA for KIAA1507 protein, partial cds	Homo saplens mRNA for KIAA1507 protein, partial cds	Homo sapiens Wolfram syndrome (WFS) mRNA	Homo sapiens Wolfram syndrome (WFS) mRNA	Homo sapiens Wolfram syndrome (WFS) mRNA	Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 5	Homo saplens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA	Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA	Homo sapiens ring finger protein 9 (RNF9), mRNA	Homo sapiens zinc finger protein 173 (ZNF173) mRNA	Homo sapiens ring finger protein 9 (RNF9), mRNA	Homo saplens zinc finger protein 173 (ZNF173) mRNA	Homo saplens mRNA for KIAA0577 protein, complete cds	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA	Homo saplens KIAA0170 gene product (KIAA0170), mRNA	Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA	Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA	Human endogenous retrovirus HERV-K10	Homo sapiens mRNA for Familial Cylindromatosis cyld gene	4938b06.x1 Soares_tests_NHT Homo sapiens cDNA clone IMAGE:1837427 3' similar to WP:727A1.5	CE14213;	RAN. member RAS oncodene family-Homo sanjens RAN. member RAS oncodene family-/PAN). wRNA	Homo sapiens proprotein convertase subtilish/kexin type 2 (PCSK2) mRNA	Homo sapiens proprotein convertase subtilisin/kexin type 2 (PCSK2) mRNA
20001 11004	Top Hit Database Source	NT	N L	N L	LN	LN L	칟	LN	N-	LN	NT	FZ	LN	FZ	N	N	Ę	LN	N	F	F	卜	Ę	F	N	TN	F	Ę	۲		EST_HUMAN	, L	L L	NT
oi Billio	Top Hit Acession No.	00 AF264750.1	00 AF264750.1	0.0E+00 AF264750.1	DO AF109718.1	4503098 NT	4505740 NT	Y18000.1	4506718 NT			30 AB040940.1	5174748 NT	5174748 NT	5174748 NT	0.0E+00 AF096156.1	7657529 NT	7857529 NT	5803146 NT	4508004 NT	5803146 NT	4508004 NT	0.0E+00 AB011149.1	7661965 NT	7661965 NT	8567387 NT	8567387 NT		7		0.0E+00 AI208756.1	6042206 NT	4505646 NT	4505646 NT
	Most Similar (Top) Hit BLAST E	0.0E+00	0.0E+00	0.0E+00)	0.0E+00	0.0E+00	0.0E+00	0.0E+00 Y18000.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	· 0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 AJ250014		0.0E+00/	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	1.18	1.6	1.7	6.18	0.98	0.73	2.04	48.44	4.02	1.08	1.08	2	2	2	3.48	1.26	1.26	6.23	0.81	6.58	33.1	4.74	5.7	9.47	5.14	5.14	2.17	1.34		1.79	32.54	1.31	1.31
	ORF SEQ ID NO:			27228						27284				27303			27316	27317	27322	27323	27324	27325	27327	27328	27329	27330	27331	27344	27410		27421	27422	27430	27431
	Exon SEQ ID NO:	14268	14269							14321	14327	14327	14339	14339	14339	14340	15863	15863	14354	14355	14357	14358	14360	14361	14362	14363	14363	14374	14440		14448	14449	14458	14458
	Probe SEQ ID NO:	1230	1231	1232	1251	1252	1262	1271	1279	1286	1292	1292	1303	1303	1303	1304	1314	1314	1319	1320	1322	1323	1325	1326	1327	1328	1328	1340	1407		1415	1416	1423	1423

WO 01/57276

Page 489 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exon Probes Expressed in bone Marrow	Top Hit Descriptor	Homo saplens KIAA1114 protein (KIAA1114), mRNA	Homo sapiens KIAA1114 protein (KIAA1114), mRNA	Homo saplens partial AF-4 gene, exons 2 to 7 and Alu repeat elements	Homo saplens alpha1-6fucosyltransferase (alpha1-6FucT) gene, exon 7	Human nebulin mRNA, partial cds	Human nebulin mRNA, partial cds	Novel human gene on chromosome 20	Novel human gene mapping to chomosome 1	Human mRNA for KIAA0240 gene, partial cds	Homo sapiens calcineurin binding protein 1 (KiAA0330), mRNA	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA	Homo saplens RFB30 gene for RING finger protein	Homo sapiens hHDC for homolog of Drosophila headcase (LOC51696), mRNA	as34s03.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:815116 5'	Cercopithecus aethiops cyclophilin A mRNA, complete cds	Cercopithecus aethlops cyclophilin A mRNA, complete cds	EST388206 MAGE resequences, MAGN Homo sapiens cDNA	EST388206 MAGE resequences, MAGN Homo saplens cDNA	Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds	Human T-cell receptor gamma chain VJCI-CII-CIII region mRNA, complete cds	Homo sapiens transmembrane glycoprotein (GPNMB) mRNA	Homo sapiens transmembrane glycoprotein (GPNMB) mRNA	Homo sapiens KIAA0957 protein (KIAA0957), mRNA	Homo saplens TNF-inducible protein CG12-1 (CG12-1), mRNA	Human transglutaminase mRNA, complete cds	Homo sapiens titin (TTN) mRNA	Homo saplens titin (TTN) mRNA	Homo sapiens ribosomal protein L5 (RPL5) mRNA	Human laminin receptor (2H5 epitops) mRNA, 5' end	Homo sapiens titin (TTN) mRNA	Homo sapiens titin (TTN) mRNA	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA
xon Probes E	Top Hit Database Source				TN			LNT								HUMAN		LN		EST HUMAN		Į,					LΝ				NT			
Single	Top Hit Acessian No.	7705565 NT	7705565 NT		0.0E+00 AF038280.1			1.1	1.1		6912457 NT	7661965 NT	7661965 NT	-00 Y07829.2	7706434 NT			0.0E+00 AF023860.1	Ţ	-00 AW976097.1			4505404 NT	4505404 NT	7662405 NT	7656972 NT	-00 M98478.1	4507720 NT	4507720 NT	4506654 NT	-00 M14199.1	4507720 NT	4507720 NT	4503098 NT
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 U35637.1	0.0E+00	0.0E+00	0.0E+00 D87077.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00 M16768.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	2.29	2.29	6.81	2.91	1.01	1.01	3.14	2.5	1.59	5.36	1.7	1.7	1.04	2.11	1.94	29.64	29.54	1.37	1.37	222	2.25	2.04	2.04	3.31	7.04	2.45	1.24	1.24	19.78	26.31	0.94	0.94	10.15
	ORF SEQ ID NO:	27434	27435	27436	27445	27456	27457	27464	27465		27473	27475	27476		27516	27532	27536	27537		27541		27544	27545	27546	27547		27553	27555	27556		27557		27572	
	SEQ ID NO:	14458	14458	14480	14468	14480	14480	14490	ŀ	14496	14499	14501	14501	14502	14545	14561	14567	14567	14569	14569	14571	14572	14573	14573	14574	14575	14581	14584	14584	15871	14585	14596		14598
	Probe SEQ ID NO:	1425	1425	1427	1434	1447	1447	1457	1459	1463	1466	1468	1468	1469	1513	1528	1534	1534	1536	1536	1538	1539	1540	1540	1541	1542	1548	1551	1551	1552	1553	1563	1563	1565

Page 490 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

יופים ביינים ביינים אינים וו ביינים וויום ויום וויום ו	Top Hit Descriptor	H.sapiens hH2B/e gene	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA	AV690831 GKC Homo sapiens cDNA clone GKCBOF02 5'	AV690831 GKC Homo sapiens cDNA clone GKCBOF02 5	Homo sepiens mRNA for KIAA1472 protein, partial cds	Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA	Homo sapiens heat shock 70kD protein 10 (HSC71) (HSPA10), mRNA	Homo sapiens heat shock 70kD protein 10 (HSC71) (HSPA10), mRNA	Human sodium channel mRNA	yo76c05.s1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:183848 3'	Homo sapiens mRNA for KIAA1609 protein, partial cds	omo saplens mRNA for KIAA1609 protein, partial cds	UI-H-Bi3-ajw-c-04-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733294 3	MR0-HT0166-191199-004-b11 HT0166 Homo saplens cDNA	MR0-HT0166-191199-004-b11 HT0166 Homo sapiens cDNA	wg81b07.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Home sapiens cDNA clone IMAGE:2371477 3' similar to TR:062788 Q62788 CYSZHIS2 ZNC FINGER PROTEIN	Homo sapiens hematopoietic-derived zinc finger protein (HD-ZNF1) mRNA	Homo sapiens T-cell receptor gamma V1 gene region	Human zinc-finger protein 7 (ZFP7) mRNA, complete cds	Human zinc-finger protein 7 (ZFP7) mRNA, complete cds	Homo sapiens keratin 18 (KRT18) mRNA	Homo saplens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA	hu11405.x1 NOL_CGAP_Lu24 Homo saplens cDNA clone IMAGE:3166281 3' similar to TR:095147 095147 MKP-1 LIKE PROTEIN TYROSINE PHOSPHATASE ;	hu11d05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166281 3' similar to TR:095147 095147 MKP-1 LIKE PROTEIN TYROSINE PHOSPHATASE:	yo59e08.rl Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYLTRANSPEPTIDASE 5 PRECURSOR (HUMAN):	yo59e08.r1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:182246 6' similar to gb:M64099 GAMMA-GLUTAMYLTRANSPEPTIDASE 5 PRECURSOR (HUMAN);
20201 11104	Top Hit Database Source	노			EST HUMAN A	Г	Т							EST HUMAN			EST HUMAN U	EST HUMAN M	Т	EST HUMAN T				H			EST_HUMAN M	h EST HUMAN M	EST_HUMAN G	EST_HUMAN G
2181112	Top Hit Acession No.	+00 Z83738.1	5921460 NT	5921460 NT	+00 AV690831.1	Γ	Γ	+00 AF157476.1	7662183 NT	7662183 NT	5729876 NT	5729876 NT	+00 M91803.1	+00 H26973.1	9.1	-00 AB046829.1	-00 AW 444637.1	-00 BE144364.1			+00 4758513 NT	-00 AF057177.1		-00 M29580.1	4557887 NT	7657065 NT	0.0E+00 BE222374.1	00 BE222374.1	00 H30132.1	
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00 H30132.1
	Expression Signal	9.8	1.81	1.81	12.62	12.62	2.54	1.24	4.83	4.83	26.26	26.26	1.56	7.01	2.31	2.31	1.04	1.19	1.19	1.84	1.44	3.61	1.72	1.72	1.53	2.12	1.27	1.27	5.17	5.17
	ORF SEQ ID NO:	27589	27590	27591	27592						27602			27621	27632	27633	27649	27682	27683	27687	27688	27689		27694	27696	27697	27700	27701	27705	27706
	Exon SEQ ID NO:	14616	14617	14617	14618		1		14626	14626	14628		14630	14645	14655		14676	14705	14705	14709	14710	14711		14714	- 1	14717	14721	14721	14723	14723
	Probe SEQ ID NO:	1583	1584	1584	1585	1585	1588	1592	1594	1594	1596	1596	1598	1613	1622	1622	1644	1673	1673	1677	1678	1679	1683	1683	1685	1686	1690	1690	1693	1693

Page 491 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exon Probes Expressed in bone wairow	Top Hit Acession Database Source Source	EST_HUMAN	TN	NT	5031748 NT Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA	NT	3841 NT	5453855 NT	NT	NT	26973 NT	NT	NT	4557538 NT		NT		4557556 NT Homo sapiens E1A binding protein p300 (EP300) mRNA	4557556 NT	INT	EST_HUMAN :	05332 NT	EST_HUMAN	NT	002331.1 IVT Human mRNA for KIAA0333 gene, partial cds	4502264 NT Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA	4502264 NT Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA	4502264 NT Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA	6005855 NT Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA	D5855 NT	LZ.	032978.1 INT Homo saplens mRNA for KIAA1132 protein, partial cds
מוֹס	Top Hit Aces No.	0.0E+00 AI149880.1	280780.1	280780.1	503	0.0E+00 AF169963.1	892	545	M75980.1	M75980.1	482	0.0E+00 AB026542.1	S94400.1			0.0E+00 AF273841.1	450	455	455	<b>U63963.1</b>	0.0E+00 W 76571.1	450	0.0E+00 AA113030.1	0.0E+00 U14967.1	0.0E+00 AB002331.1	450	450				0.0E+00 AB032978.1	0.0E+00 AB032978.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00 Z80780.1	0.0E+00 Z80780.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 M75980.1	0.0E+00 M75980.1	0.0E+00	0.0E+00	0.0E+00 S94400.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 U63963.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	0.94	7.26	7.26	28.3	0.91	5.35	1.03	96.0	96.0	1.37	20.03	2.59	0.97	1.21	2.63	35.79	2.42	2.42	2.05	1.32	3.9	1.13	14.85	5.94	6.64	6.64	6.64	6.56	6.56	1.34	1.34
<u> </u>	ORF SEQ ID NO:		27708	27709		27721	27724	27727	27731	27732	27736	27743		27752	27759	27775		27821	27822	27825		27829	27830	27845	27848	27849	27850	27851	27872	27873	27883	27884
	SEQ ID NO:	14725	14726	14728	14729	14739	14740	14743	14748	14748	14750	14756	14758	14767	15876	14789	15877	14833	14833	14835	14838	15878	14839	14851	14853	14854	14854	14854	14877	14877	14887	14887
	Probe SEQ ID NO:	1695	1696	1696	1699	1708	1710	1713	1718	1716	1720	1726	1728	1737	1744	1760	1800	1805	1805	1807	1810	1811	1812	1824	1828	1827	1827	1827	1851	1851	1881	1861

Page 492 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

ř		T		_		-		_	_,													Т	Т	_				$\neg$	$\neg$	$\neg$		_
Siligia Exoli Flobes Expressed ili Dolla Maliow	Top Hit Descriptor	Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA	Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA	Human retinal degeneration slow (RDS) gene, exon 1	Human retinal degeneration slow (RDS) gene, exon 1	UI-H-BI1-afn-f-07-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722333 3'	UI-H-BI1-afin-f-07-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722333 3'	601179164F1 NIH_MGC_20 Homo saplens cDNA clone IMAGE:3547239 5'	501179164F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3547239 5'	Homo sapiens nuclear protein (NP220), mRNA	Homo saplens nuclear protein (NP220), mRNA	Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products	Homo saplens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products	Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds	Human transglutaminase mRNA, complete cds	Human transglutaminase mRNA, complete cds	Homo saplens transforming growth factor, beta 3 (TGFB3), mRNA	Homo saplens transforming growth factor, beta 3 (TGFB3), mRNA	Homo sapiens death receptor 6 (DR6), mRNA	Homo saplens glutahione S-transferase theta 2 (GST12) and glutathione S-transferase theta 1 (GSTT1)	genes, complete cas Hirman hobiscomerase I ose idogene 1	Homo sapiens butyrophilin, subfamily 3, member A2 (BTN3A2), mRNA	Homo sepiens histidine ammonia-lyase (HAL) mRNA	Homo sapiens histidine ammonia-lyase (HAL) mRNA	Homo sapiens ohromosome 21 segment HS21C052	Homo sapiens nebulin (NEB), mRNA	Homo saplens nebulin (NEB), mRNA	Homo sapiens actinin, alpha 4 (ACTN4) mRNA	Homo sapiens actinin, alpha 4 (ACTN4) mRNA	Homo sapiens mRNA for KIAA0790 protein, partial cds	Homo sapiens mRNA for KIAA0790 protein, partial cds	Human TFEB protein mRNA, partial cds
ZXVII PIODES	Top Hit Database Source	ĻΝ	NT	NT	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	LN	NT	NT	ΙN	LN	NT	TN	٦	TN	N	<u>!</u>	Z Z	L	N	뉟	F	ΙΝ	NT	LN	ΤN	NT	NT	ΝΤ
aligie.	Top Hit Acession No.	4826783 NT	4826783 NT	107147.1	J07147.1	0.0E+00 AW207280.1	00 AW207280.1	10 BE277465.1	0.0E+00 BE277465.1	7657390 NT	7657390 NT	4506384 NT	4506384 NT	0.0E+00 AF157476.1	198478.1	198478.1	4507464 NT	4507484 NT	7657038 NT		0.0E+00(AF240786.1	5901905 NT	4809282 NT	4809282 NT	0.0E+00 AL163252.2	8400716 NT	8400716 NT	4826638 NT	4826638 NT	0.0E+00 AB018333.1	0.0E+00 AB018333.1	00 M33782.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00 U07147.1	0.0E+00 U07147.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 M98478.1	0.0E+00 M98478.1	0.0E+00	0.0E+00	0.0E+00	1	0.05+00.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00
	Expression Signal	3.28	3.28	6.86	6.86	1.48	1.48	3.46	3,46	0.93	0.93	2.02	2.02	1.13	1.41	1.41	2.02	2.02	1.08	-	5.63	1.46	1.88	1.88	6.0	1.81	1.81	2.97	2.97	1.05	1.05	1.59
	ORF SEQ ID NO:	27886	27887	27888	27889	27892	27893	27912	27913	27956	27957	27959	27960		27970	27971	27978	27979				27988		27996		28010		28012	28013	28025		28030
	Exen SEQ ID NO:	14890	14890		14891	14894	14894	14917	14917	14960	14960	14963	14963	14972	15881	15881	14977	14977	14979		14981	15882	14994	14994	15005	15007	15007	15008	15008	15018	15018	15024
	Probe SEQ ID NO:	1865	1865	1866	1866	1869	1869	1892	1892	1936	1936	1939	1939	1948	1949	1949	1954	1954	1957		1959	1965	1973	1973	1984	1986	1986	1987	1987	1997	1997	2003

Page 493 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe Exon SEQ ID NO: 2003 15024 2005 15026 2005 15026 2006 15027 2008 15039 2009 15036 2009 15036 2007 15094 2077 15094 2077 15094 2089 15106 2089 15110	ğΩ	Expression Signal 1.59 1.29 1.29 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.1	Most Similar (Top Hit A Value)  Value  0.0E+00 M33782.1  0.0E+00 AM19302  0.0E+00 AM19302  0.0E+00 AM19302  0.0E+00 AM19302  0.0E+00 AM19303  0.0E+00 AF27384  0.0E+00 AF27384  0.0E+00 AM14083  0.0E+00 AM14083  0.0E+00 AM14083  0.0E+00 AM14083  0.0E+00 AM14083  0.0E+00 AM14083  0.0E+00 AM14083  0.0E+00 B877522  0.0E+00 B877522  0.0E+00 B877522  0.0E+00 B877522  0.0E+00 B877522	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	Top Hit Database Source Source T_HUMAN T_HUMAN T_HUMAN T_HUMAN T_HUMAN T_HUMAN T_HUMAN T_HUMAN T_HUMAN	Human TFEB protein mRNA, partial cds  X88bO1.x1 NCI_CCAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3' X88bO1.x1 NCI_CCAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3' X88bO1.x1 NCI_CCAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3' X88bO1.x1 NCI_CCAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3' X88bO1.x1 NCI_CCAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3' X88bO1.x2 NCI_CCAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3' X88bO1.x2 NCI_CCAP_Pan1 Homo sapiens cDNA clone IMAGE:478913 3' Homo sapiens mRNA for KIAA0577 protein, complete cds Homo sapiens mRNA for KIAA1613 protein, partial cds Homo sapiens SMCY (SMCY) gene, complete cds Homo sapiens SMCY (SMCY) gene, complete cds Homo sapiens CMCY (SMCY) gene, complete cds Homo sapiens PRSTG3a (TP63TG3a) TR22E10 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone IMAGE:4138320 6' Homo sapiens phosphodiesterase 8A, cGMP-specific, rcd, alpha (PDE8A), mRNA Homo sapiens phosphodiesterase 8A, cGMP-specific, rcd, alpha (PDE8A), mRNA Homo sapiens phosphodiesterase 8A, cGMP-specific, rcd, alpha (PDE8A), mRNA Homo sapiens cDNA clone IMAGE:4138320 6' 801485146F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:4138320 6' 80148546F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4138320 6' 801405064F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4138320 6' 8019002604F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4138320 6' 8019002604F1 NIH_MGC_19 Homo sapiens cDNA RC3-CT0413-270700-022-410 CT0413 Homo sapiens cDNA RC3-CT0413-270700-022-410 CT0413 Homo sapiens cDNA
			0.0E+00 L00620.1		E E	Human plasma membrane calcium ATPase Isoform 2 (APT2B2) mRNA, comlete ods Human plasma membrane calcium ATPase Isoform 2 (APT2R2) mRNA, comfete ods
			0.0E+00 0.0E+00 0.0E+00	4.1	T_HUMAN	From the pean in the first are second in 2 (Ar 1 ZBZ) min. Why, connete cus  Homo sepiens GTP binding protein 1 (GTPBP1) mRNA  QV1-GN0065-140800-318-c10 GN0065 Homo sepiens cDNA  Homo sepiens X-finked juvenile retinoschisis protein (XLRS1) gene, excn 6 and complete cds  601672066F1 NIH MGC 20 Homo sepiens cDNA dione IMAGE:3954785 5
			0.0E+00		П	PM0-BT0547-210300-004-F04 BT0547 Homo saplens cDNA

Page 494 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

C c	1			Most Similar		11	The state of the s
SEO ID NO:	SEO IO NO:	ORF SEQ ID NO:	Expression Signal	(Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
2128	15145	28161	1.26	0.0E+00	0.0E+00 AF240786.1	F	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
2131	15148			0.0E+00	0.0E+00 AW752708.1	EST_HUMAN	IL3-CT0219-271099-022-G10 CT0219 Homo sapiens cDNA
2133	15150	28165	4.92	0.0E+00	0.0E+00 AI904640.1	EST_HUMAN	QV-BT065-020399-092 BT065 Home saplens cDNA
2133	15150	28166	4.92	0.0E+00	0.0E+00 AI904640.1	EST_HUMAN	QV-BT065-020399-092 BT065 Homo saplens cDNA
2191	15206		1.37	0.0E+00	0.0E+00 L14787.1	ΙN	Human DNA-binding protein mRNA, 3'end
2196	15211	28229	0.93	0.0E+0	0 BE274696.1	EST_HUMAN	601122338F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346688 5'
2198	15213	28232	16.22		00 AV738288.1	EST_HUMAN	AV738288 CB Home saplens cDNA clone CBNBDE08 5'
2198	15213				0.0E+00 AV738288.1	EST_HUMAN	AV738288 CB Homo saplens cDNA clone CBNBDE08 5'
2200	15215	ŀ			0.0E+00 AA931691.1	EST_HUMAN	0032e01.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1567896 3'
2204	15219	28239			0.0E+00 BF344434.1	EST_HUMAN	602014829F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4150734 5'
2205	15220				0.0E+00 BE748899.1	EST_HUMAN	601572186T1 NIH_MGC_55 Homo saplens cDNA clone IMAGE:3839012 3'
2209	15224	28244			0.0E+00 BF377897.1	EST_HUMAN	CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA
2209	15224	28245	6.56			EST_HUMAN	CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA
2213	15887	28250	1.7		0.0E+00 BF313617.1	EST_HUMAN	601900261F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129622 5'
2216	15230	28253	1.26	0.0E+00	0.0E+00 BE018750.1	EST_HUMAN	bb84e02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3049082 5' similar to TR:Q15170 Q15170 TRANSCRIPTION FACTOR S-II-RELATED PROTEIN;
2217	15231	28254	1.59	0.0E+00	0.0E+00 AA042813.1	EST_HUMAN	2k53c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65867_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN);
2217	15231	28265	1.59	0.0E+00		EST HUMAN	2k53c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:x6s857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN):
2225	15239	28263	3.38	0.0E+C		NT	Homo sapiens chromosome 21 segment HS21C004
2225	15239	28264	3.38		2	LN	Homo sapiens chromosome 21 segment HS21C004
2230	16244		1.57		0.0E+00 U36264.1	NT	Human beta-prime-adaptin (BAM22) gene, exon 16
2252	15266		7.38	0.0E+00	TN 9357556	IN	Homo saplens E1A binding protein p300 (EP300) mRNA
2258	15272		1.33	0.0E+00	7662401 NT	NT	Homo saplens KIAA0952 protein (KIAA0952), mRNA
2264	15278		2.29		0.0E+00 BE895281.1	EST_HUMAN	601433525F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918607 5'
2266	15280					EST_HUMAN	601495208F1 NIH_MGC_70 Homo saplens cDNA clone IMAGE:3897457 5'
2266	15280	28306	1.56		0.0E+00 BE905563.1	EST_HUMAN	601495208F1 NIH_MGC_70 Homo saplens cDNA clone IMAGE:3897457 5'
2269	15282	28308		0.0E+C		NT	Homo sapiens mRNA for KIAA1363 protein, partial cds
2308	15320	28340			0.0E+00 BF344756.1	EST_HUMAN	602014009F1 NCI_CGAP_Bm64 Homo saplens cDNA clone IMAGE:4149770 5'
2308		28341			BF3447	EST_HUMAN	602014009F1 NCI_CGAP_Bm64 Homo saplens cDNA clone IMAGE:4149770 5
2309	1	28342		0.0E+00		N	Homo sapiens differentially expressed in FDCP (mouse homolog) 6 (DEF6), mRNA
2309	15321	28343	4.01	0.0E+00	11545748 NT	NT	Homo saplens differentially expressed in FDCP (mouse homolog) 6 (DEF6), mRNA

Page 495 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	ox09c07.x1 Soares_fetal_liver_splean_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1874828 3'	zv78a11.r1 Soares_total_fetus_Nb2HF8_9w Homo saplens cDNA clone IMAGE:759740 5'	zv78a11,r1 Scares_total_fetus_Nb2HF8_9w Homo saplens cDNA clone IMAGE:759740 5'	602021846F1 NCI_CGAP_Brn67 Homo saplens cDNA clone IMAGE:4157339 5'	Human T-cell receptor gamma chain VJCI-CII-CIII region mRNA, complete cds	Homo sapiens potassium channel Kv2.1 mRNA, complete cds	Homo sapiens flavin containing monooxygenase 3 (FMO3), mRNA	7t2za02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3295370 3' similar to TR:O94939 O94839 KIAA0857 PROTEIN ;	Homo sapiens phosphorylase kinase alpha subunit (PHKA2) gene, exon 32	ty57c08.x1 NCI_CGAP_Ut2 Homo saplens cDNA clone IMAGE:2283182 3'	Homo saplens sperm specific antigen 2 (SSFA2), mRNA	Homo sapiens sperm specific antigen 2 (SSFA2), mRNA	Homo sapiens KIAA0218 gene product (KIAA0218), mRNA	Homo saplens KIAA0218 gene product (KIAA0218), mRNA	Human mRNA for KIAA0194 gene, partial cds	Human mRNA for KIAA0194 gene, partial cds	Homo sapiens signal regulatory protein, beta, 1 (SIRP-BETA-1) mRNA	AU131142 NT2RP3 Homo saplens cDNA clone NT2RP3002064 5'	601586843F1 NIH_MGC_7 Homo saplens cDNA clone IMAGE:3941003 5'	MR1-SN0033-120400-002-a04 SN0033 Horno saplens cDNA	Homo saplens KIAA0244 protein (KIAA0244), mRNA	Homo saplens hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) (H6PD), mRNA	Homo sapiens hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) (H6PD), mRNA	Hamo sapiens cytochrome P460 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P460 polypeptide	4 (CYP3A4) and cybonirome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cybonirome P450	polypeptide 5 (CYP3A5) gene, partial cds	AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5'	AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5'	AU118082 HEMBA1 Homo saplens cDNA clone HEMBA1002839 5'	Homo sapiens hypothetical protein FLJ20081 (FLJ20081), mRNA	AU119582 HEMBA1 Homo sapiens cDNA clone HEMBA1006155 5'	ox60b02.xf Soares_NhHMPu_S1 Homo saplens cDNA clone IMAGE:1660683 3' similar to TR:008662 O08662 230KDA PHOSPHATIDYLINOSITOL 4-KINASE.;
Top Hit Database Source	П	П	EST_HUMAN	EST_HUMAN	ΝΤ	L <sub>N</sub>	F		닏	THUMAN	LN	Į.	LN	NT	TN	N		EST_HUMAN	EST_HUMAN	EST_HUMAN	占	NT	L			٦		EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	
Top Hit Acession No.	0.0E+00 A1076404.1	AA428001.1	0.0E+00 AA428001.1	0.0E+00 BF347039.1			6325466 NT	0.0E+00 BE676095.1			5803178 NT	5803178 NT	7662007 NT	7662007 NT	)83778.1	383778.1	0.0E+00 5174678 NT	NU131142.1	0.0E+00 BE794026.1	0.0E+00 AW867076.1	7662017 NT	4758497 NT	4758497 NT						0.0E+00 AU118082.1	8923089 NT	0.0E+00 AU119582.1	0.0E+00 AI042035.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 M16768.1	0.0E+00 L02840.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 D83778.1	0.0E+00 D83778.1	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00			0.0E+00/	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	2.11	1.43	1.43	2.21	1.36	1.09	1.57	1.83	5.18	2.11	1.76	1.76	1.44	1.44	26.0	26'0	3.77	1.86	8.67	1.23	3.7	2.27	2.27			6.34	13.47	13.47	13.47	96.0	1.11	4.37
ORF SEQ ID NO:	28344	28346	28347	28349	27544	28355	28356	28361	28363	28364	28368	28369	28372	28373	28377	28378	28386	28390		28391	28392	28393	28394				28396	28397	28398	28399	28453	
Exon SEQ ID NO:				15326	14572	ı	15332	15338				1	l					ı		15370	15371	15372	15372					15375	15375	•		1
Probe SEQ ID NO:	2310	2312	2312	2314	2315	2320	2321	2327	2330	2331	2336	2336	2342	2342	2346	2346	2356	2360	2361	2362	2363	2364	2364			2365	2367	2367	2367	2368	2424	2426

Page 496 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Page 497 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

ORF SEQ Expression (Top) Hit Top Hit Acession Database ID No: Signal BLASTE No. Source	28589 8.56 0.0E+00 AF245505.1 , NT	28607 1.03 0.0E+00 BE296613.1  EST_HUMAN	28629 2.15 0.0E+00 AB037836.1 NT	28630 2.15 0.0E+00 AB037836.1 NT	2.35 0.0E+00 BF513835.1 EST_HUMAN	28634 1.01 0.0E+00 BF672818.1 EST_HUMAN	28642 1.11 0.0E+00 AI571737.1 EST_HUMAN		28647 7.78 0.0E+00 AB037859.1 NT	28648 1.25 0.0E+00 BE795445.1 EST_HUMAN	28649 1.25 0.0E+00 BE795446.1 EST_HUMAN	8.15 0.0E+00 BE792472.1 EST_HUMAN	28664 2.86 0.0E+00 4504686 NT	1.32 0.0E+00 U78027.1 NT	28672 5.99 0.0E+00 AF173227.1 NT	28673 110.09 0.0E+00 AB011108.1 NT	28676 1.22 0.0E+00 AU133385.1 EST_HUMAN	28677 0.92 0.0E+00 M69225.1 INT	28679 1.26 0.0E+00 AU130403.1  EST_HUMAN	28680 1.26 0.0E+00 AU130403.1 EST_HUMAN	28683 2.07 0.0E+00 AW887015.1  EST_HUMAN	28686 1.12 0.0E+00 BF000018.1 EST_HUMAN	28687 5.39 0.0E+00 BE383165.1 EST_HUMAN	3.03 0.0E+00 BE531263.1 [EST_HUMAN	28719 0.92 0.0E+00 AB037732.1 NT	11.44 0.0E+00 AA316723.1 EST_HUMAN	28741 1.11 0.0E+00 BE79484.1 EST_HUMAN	28749 3.65 0.0E+00 U36253.1 NT	28750 1.05 0.0E+00 7669517 NT	
	28589	28607	28629	28630		28634			28647	28648	28649		28664		28672	28673	28676	28677	28679	28680	28683	28686	28687				28741			
B Exon ID SEQ ID NO:		2589 15590	2806 15827	ı	ı	2611 15810	2620 15618	1	1	2624 15623	1	L	L	2853 15650		L	2661 15658		2664 15661	L	2667 15664	370 15667	2671 15668	Ĺ	2709 15703		733 15727	2739 15733	2740 15734	2741 15735
Probe SEQ ID NO:	25	8	8	88	28	8	28	,	18	88	8	8	18	28	8	18	8	8	8	8	8	28	۳	26	2	2	2	2	2,	2,

Page 498 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

	_	_	_	_	_			_		_	_	-	_		_	-	_	_		_	_	_	_										_
Top Hit Descriptor	601591991F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945983 5'	601335485F1 NIH MGC 39 Homo sapiens cDNA clone IMAGE:3689564 5	AV721647 HTB Homo sapiens cDNA clone HTBBYE09 5'	Homo sapiens spermatogenesis associated PD1 (KIAA0757) mRNA	Homo sapiens spermatogenesis associated PD1 (KIAA0757) mRNA	Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA	Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA	Homo sapiens hypertension-related calclum-regulated gene mRNA, complete cds	AV651066 GLC Homo saplens cDNA clone GLCCLD073'	CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA	CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA	Homo saplens cerebellar degeneration-related protein (34kD) (CDR1) mRNA	Homo sepiens cerebellar degeneration-related protein (34kD) (CDR1) mRNA	601580903F1 NIH MGC 9 Homo sapiens cDNA clone IMAGE:3929472 5'	Homo sapiens chromosome 21 segment HS21C001	UI-H-BW1-amw-e-07-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071340 3'	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA	Homo sapiens anglopoletin-3 (ANG-3), mRNA	Homo sapiens angiopoletin-3 (ANG-3), mRNA	602085579F1 NIH_MGC_83 Hamo sapiens cDNA clone IMAGE:4249915 5'	Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA	AV725534 HTC Homo sapiens cDNA clone HTCCCA03 5'	AV725534 HTC Homo sapiens cDNA clone HTCCCA03 5'	au55d04.y1 Schnelder fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518683 5' similar to SW R134 HIMAN P40429 60S RIROSOMAI PROTEIN 1114	602071957F1 NCI CGAP Bm67 Homo sablens cDNA clone IMAGE:4214679 5'	601450912F1 NIH MGC 65 Homo saplens cDNA clone IMAGE:3854642.5	AU131494 NT2RP3 Homo saplens cDNA clone NT2RP3002672 5'	AU131494 NT2RP3 Homo sapiens cDNA clone NT2RP3002672 5'	600944794F1 NIH_MGC_17 Hamo sapiens cDNA clone IMAGE:2960806 57	600944794F1 NIH_MGC_17 Hamo sapiens cDNA clone IMAGE:2960806 5'	glycoprotein D=Duffy group antigen [human, blood, Genomic DNA, 3068 nf]	Homo sapiens BTRCP2 mRNA for F-box and WD-repeats protein isoform C, complete cds	Homo sapiens ALR-like protein mRNA, partial cds
Top Hit Database Source	EST HUMAN	EST HUMAN	EST_HUMAN	Z	뉟	Z	NT	LZ LZ	EST HUMAN	EST HUMAN	EST_HUMAN	N	N	EST HUMAN		EST_HUMAN	Ϋ́	N	N	EST_HUMAN	L L	EST_HUMAN	EST_HUMAN	FST HUMAN	EST HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	N FN	N	۲N
Top Hit Acession No.	0.0E+00 BE796376.1	0.0E+00 BE563433.1	0.0E+00 AV721647.1	5174486 NT	5174486 NT	8923441 NT	8923441 NT	0.0E+00 AF290195.1	0.0E+00 AV651066.1	BF377897.1	BF377897.1	4757963 NT	4757963 NT	0.0E+00 BE747193.1	0.0E+00 AL163201.2	0.0E+00 BF514110.1	4503098 NT	7705275 NT	7705275 NT	0.0E+00 BF677694.1	7427522 NT	0.0E+00 AV725534.1	0.0E+00 AV725534.1	0.0E+00 AI879163 1	0.0E+00 BF530661.1				0.0E+00 BE300344.1	0.0E+00 BE300344.1	0.0E+00 S76830.1	0.0E+00 AB033281.1	0.0E+00 AF264750.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	9.77	13.57	1.22	2.9	2.9	0.98	0.98	3.23	48.84	6.5	6.5	0.94	0.94	2.96	1.71	4.09	1.02	1.56	1.56	4.03	1.58	15.3	15.3	13.6	2.83	3.53	1.98	1.98	34.94	34.94	7.12	0.75	1.6
ORF SEQ ID NO:	28758						28768	28769		28770	28771	28774	28775	28780		28792		28800	28801	28802			28814		28819	28820		28822		28824	26216		26735
Exan SEQ ID NO:	15741	15903	1	15746	15746	15747	1		15749	15750	15750	15754	15754	15758	15771	15772	15778		15784	15785	15791		15795	15797	15800	15801	15803	15803		15804		15811	13796
Probe SEQ ID NO:	2748	2751	2752	2754	2754	2755	2755	2756	2757	2758	2758	2762	2762	2766	2779	2780	2786	2792	2792	2793	2799	2803	2803	2805	2808	2809	2811	2811	2812	2812	2817	2820	2826

Page 499 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 500 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA	Homo sapiens chromosome 21 segment HS21C006	Homo sapiens chromosome 21 segment HS21C006	_	Г	Homo sapiens EphA4 (EPHA4) mRNA	Homo saplens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA	ht18d07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2167981 3' similar to TR:016247	Τ			qg49f04.x1 Soares_testis_NHT Homo sapiens cDNA done IMAGE:1836527 3' similar to SW:CB20_HUMAN P52298 20 KD NUCLEAR CAP BINDING PROTEIN;	Homo sapiens mRNA for KIAA1267 protein, partial cds	Homo sapiens mRNA for KIAA1287 protein, partial cds	Homo saplens mRNA for KIAA1508 protein, partial cds	Homo sapiens mRNA for KIAA1508 protein, partial cds	Homo sapiens KIAA0100 gene product (KIAA0100), mRNA	Homo sapiens KIAA0100 gene product (KIAA0100), mRNA	Homo sapiens myeloid/lymphoid or mixed-lineage feukemia (trithorax (Drosophila) homolog); translocated to, (MLLT4) mRNA	Homo sapiens mysloid/lymphoid or mixed-lineage leukernia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA	Homo saplens melanoma antigen, family B, 4 (MAGEB4), mRNA	Homo saplens melanoma antigen, family B, 4 (MAGEB4), mRNA	Homo sapiens neurexin III (NRXN3) mRNA	H.sapiens mRNA for M phase phosphoprotein 10	Homo sapiens immunoglobulin-like transcript 1c variant 4 (ILT1c) gene, exon 6		Homo sapiens prospero-related homeobox 1 (PROX1) mRNA	Homo sapiens mRNA for PKU-alpha, partial cds	Homo saplens KIAA0737 gene product (KIAA0737), mRNA
Top Hit Database Source	TN	ΤN	FZ	EST_HUMAN	NT	NT	NT	INVANI II		EST_HUMAN	F	EST HUMAN	N FN	Z	LΝ	N	R	FZ	FN	L Z	LN.	LNT	LN.	LN	NT	EST_HUMAN	NT LNT	NT	NT
Top Hit Acession No.	6806918 NT	0.0E+00 AL163206.2	0.0E+00 AL163206.2	AA215579.1	0.0E+00 Y19210.1	4758279 NT	4503470 NT	0.05±00 0.1581003.1	71001005	A1561002.1	0.0E+00 AF152338.1	0.0E+00 AI209084.1	0.0E+00 AB033093.1	AB033093.1	0.0E+00 AB040941.1	00 AB040941.1	7661903 NT	7661903 NT	5174574 NT		4505084 NT	4505084 NT	0.0E+00 4758827 NT	X98494.1	0.0E+00 AF106275.1	0.0E+00 AI149880.1	4506118 NT	AB00488	7662273 NT
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	001	20.70	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	0.63	2:52	2.52	0.94	4.07	1.17	23.04	6	0.02	0.92	76.0	1.26	2.92	2.92	4.91	4.91	2.56	2.56	2.73	2.73	2.36	2.36	1.71	1.03	7.63	1.1	0.97	2.71	1.51
ORF SEQ ID NO:	28884	28888		28830			28901				28905						28924	28925				L	28948		28952				
SEQ ID NO:	15962	ŀ	ı		15973	15976		l	1		15980				15998	_	i	L.			16014		L		16029	J	l	li	l I
Probe SEQ ID NO:	2903	2906	2906	2907	2915	2918	2919	0000	7767	2920	2922	2931	2939	2939	2940	2940	2943	2943	2944	2944	2956	2956	2965	2966	2971	2985	2994	2995	3007

Page 501 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

ſ		Г	Т	Г	Т	Т	Т	T	Т	Т	Т	Т	Т	Т	Т		_	Т	Т	Т	Т	Т	T	Т	Т	Γ	т	т	т		Т	1	Т
	Top Hit Descriptor	Homo sapiens calcium channel, voltage-dependent, gamma subunit 3 (CACNG3), mRNA	Homo sepiens calcium channel, voltage-dependent, gamma subunit 3 (CACNG3), mRNA	Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds	Homo sapiens intersectin short Isoform (ITSN) mRNA, complete cds	Homo sapiens chromosome 21 segment HS21C046	Human displacement protein (CCAAT) mRNA	Homo sapiens semenogelin i (SEMG1) mRNA	EST388375 MAGE resequences, MAGN Homo sapiens cDNA	Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds	Homo sapiens heat shock 70kD protein 1 (HSPA1A), mRNA	Homo sapiens heat shock 70kD protein 1 (HSPA1A), mRNA	Isoform 2 of a novel human mRNA from chromosome 22	Homo seplens putative transcription factor CR53 (CR53) mRNA, partial cds	Homo saplens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein,	JM10 protein, A4 differentiation-depandent protein, triple LIM domain protein 6, and synaptophysin genes,	complete cds; and L-type calcium channel a>	Homo sapiens chloride channel CLC4 (CiC4) mRNA, complete cds	Human germline gene 16.1 for lg lambda L-chain C region (IgL-C16.1)	Homo sapiens F-box protein FBL5 (FBL5) mRNA, complete cds	Homo sapiens melanoma-associated antigen (MAGE-C1) gene, complete cds	Homo sapiens SWI-SNF complex protein p270 mRNA, partial cds	Homo saplens NOD1 protein (NOD1) gene, exons 1, 2, and 3	Homo saplens KIAA0469 gene product (KIAA0469), mRNA	Homo saplens offactory receptor-like protein (OLFR 42B) gene, OLFR 42B-9110 allele, partial cds	Homo sepiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA	Human ferritin heavy chain mRNA, complete cds	Homo sapiens mRNA for KIAA0549 protein, partial cds	Homo sapiens mRNA for KIAA0549 protein, partial cds	ye32f03.s1 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:119453 3' similar to SP:S29539 S29539 BASIC PROTEIN, 23K	601878507F1 NIH_MGC_55 Homo saplens cDNA clone IMAGE:4107433 5'	wu12h10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2516803 31	H.sapiens mRNA for gamma-glutamyltransferase
20001 11100	Top Hit Database Source	NT	LN	Z	NT	L	NT	N <sub>T</sub>	EST_HUMAN	Ŗ	NT	N <sub>T</sub>	NT	NT			NT	IN	IN	NT	LN	NT	FZ	LN	TN	N	LN FN	NT	FZ.	EST_HUMAN	EST_HUMAN	EST_HUMAN	NT
O.B. I	Top Hit Acessian No.	5729755 NT	5729755 NT	00 AF114488.1	0.0E+00 AF114488.1	30 AL163246.2	00 M74099.1	4506882 NT	0.0E+00 AW976266.1	0.0E+00 AF195953.1	5579469 NT	5579469 NT	0.0E+00 AL359403.1	0.0E+00 AF017433.1			0.0E+00 AF196779.1	0.0E+00 AF170492.1	(03529.1	0.0E+00 AF199355.1	0.0E+00 AF064589.1	0.0E+00 AF265208.1	00 AF149773.1	7662139 NT	0.0E+00 AF042075.1	4826783 NT	20941.1	\B011121.1	0.0E+00 AB011121.1	94870.1	0.0E+00 BF243336.1	0.0E+00 Al968086.1	(98922.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00			0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 L20941.1	0.0E+00	0.0E+00	0.0E+00 T94870.1	0.0E+00	0.0E+00	0.0E+00 X98922.1
	Expression Signal	1.96	1.96	0.95	0.95	0.74	1.28	0.88	0.76	4.37	15.24	15.24	6.14	2.48			1.66	0.73	12.69	1.77	1.71	4.2	4.68	2.83	1.56	4.32	22.34	1.3	1.3	21.23	1.13	1.11	4.28
	ORF SEQ ID NO:	28985	28986		28995	L	29014				29031			29036				29052			29071			29095	29096	29128	29135			29145		29164	
	σ	16066			16074	16096			16109		16117		16119	16123		_	16126	16141	16150	16155	16159	16180	16181	16186	16187	16213	16220	16223	16223	16229			
	Probe SEQ ID NO:	3008	3008	3016	3016	3038	3040	3050	3052	3057	3060	3060	3062	3066			3069	3084	3092	3098	3102	3123	3124	3129	3130	3157	3166	3168	3168	3174	3190	3192	3197

Page 502 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

			The second secon		,		
Probe SEQ ID NO:	Exan SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
3197		29172	4.28		X98922.1	TN	H.sapiens mRNA for gamma-glutamyltransferase
3207	16262	29183	1.18	0.0E+00	4758827 NT	TN	Homo sapiens neurexin III (NRXN3) mRNA
3207	16262	29184	1.16	0.0E+00	4758827 NT	님	Homo sapiens neurexin III (NRXN3) mRNA
3213	16268	29191	9.61	0.0E+00	4504658 NT	LΝ	Homo sapiens Interleukin 1 receptor, type I (IL1R1) mRNA
3230	16285	29208	3.9	0.0E+00	M28699.1	TN	Homo sapiens nucledar phosphoprotein B23 (NPM1) mRNA, complete cds
3234	16280	20211	<u>.</u> بر	0.05+0.0	TN REDCOSP	5	Homo sapiens solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 5 (SI C25A5), nuclear rene encoding mitochondrial protein, mRNA
3240	1	29219	0.98	0.0E+00		Į.	Homo sapiens CREB binding protein (Rubinstein-Taybi syndrome) (CREBBP) mRNA
3240	1	29220	0.98	0.0E+00	4758055 NT	닏	Homo sapiens CREB binding protein (Rubinstein-Taybi syndrome) (CREBBP) mRNA
3242	16297	29221	3.35	0.0E+00	AA774783.1	EST_HUMAN	ae87b11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:971133 3'
3250	1	28228	3.58	0.0E+00	AF286598.1	NT	Homo sapiens angiostatin binding protein 1 mRNA, complete cds
3250	16305	29230	3.58	0.0E+00	AF286598.1	ΝΤ	Homo sapiens angiostatin binding protein 1 mRNA, complete cds
3261	<u> </u>	29235	1.15	0.0E+00	4557590 NT	LΝ	Homo sapiens fibrillin 1 (Marfan syndrome) (FBN1) mRNA
3267		29243	1.02	0.0E+00	4507720 NT	LN	Homo saplens titin (TTN) mRNA
							Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-
							hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SKI2W), RD, complement factor B
3275	16329	29250	1.04	0.0E+00		TN	(Bf), and complement component C2 (C2) genes,>
3278	16332	29253	4.45	0.0E+00		INT	Homo sapiens very large G-protein coupled receptor-1 (VLGR1) mRNA, complete cds
3288	18312	29261	2.4	0.0E+00	4502014 NT	۲N	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA
3288	18312	29262	2.4	0.0E+00	0.0E+00 4502014 NT	FZ	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA
3303	16356	29275	2.99	0.0E+00	0.0E+00 AF265208.1	M	Homo sapiens SWI-SNF complex protein p270 mRNA, partial cds
3304	16357	29276	0.86	0.0E+00	8923624 NT	ᅜ	Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA
3335	16386	29307	2.87	0.0E+00	A1589294.1	EST HUMAN	tr68f08.X2 NOL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2222535 3' similar to SW:RL11_RAT P26121 60S RIBOSOMAL PROTEIN L11, roontains Alu repetitive element,
3343	1	29315	2.44		AF128893.1	LΝ	Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6
3343	16394	29316	2.44	0.0E+00	AF128893.1	LN	Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6
3344	16395	29317	0.85	0.0E+00	7657213 NT	뒫	Homo sapiens hormonally upregulated neu fumor-associated kinase (HUNK), mRNA
3344	16395	29318	0.85	0.0E+00	7657213 NT	NT.	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
3346	16397	29319	1.11	0.0E+00	4502582 NT	ΝΤ	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3346	16397	29320	1.11	0.0E+00	4502582 NT	TN	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3349	16400	29322	10.77	0.0E+00	0.0E+00 AF111163.1	NT	Homo sapiens pyrin (MEFV) gene, complete cds
3351	16402		1.09	0.0E+00		NT	Homo sapiens mRNA for KIAA1507 protein, partial cds
3358	16408	29330	0.85	0.0E+00	0.0E+00 BE779039.1	EST_HUMAN	601464995F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868246 5'

Page 503 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	wb10f04.x1 NCI_CGAP_GC9 Homo sapiens cDNA clone IMAGE:2305279 3' similar to TR:Q91929 Q91929 ZINC FINGER PROTEIN.;	AU123664 NTZRMZ Homo sapiens cDNA clone NTZRM2000735 5	Homo sapiens offactory receptor, family 10, subfamily C, member 1 (OR10C1), mRNA	Homo sapiens offactory receptor, family 10, subfamily C, member 1 (OR10C1), mRNA	Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA	Homo sapiens T-type calcium channel alpha1 subunit Alpha1I-a isoform (CACNA1I) mRNA, complete cds	Homo sapiens KIAA0952 protein (KIAA0952), mRNA	Homo sapiens KIAA0952 protein (KIAA0952), mRNA	Homo saplens beaded filament structural protein 1, filensin (BFSP1) mRNA	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 2 (LILRA2), mRNA	Homo sapiens skeletal muscle LIM-protein 1 (FHL1) gene, complete cds	Homo sapiens death receptor 6 (DR6), mRNA	Homo sapiens protein kinase, AMP-activated, alpha 2 catalytic subunit (PRKAA2) mRNA	Homo sapiens protein kinase, AMP-activated, alpha 2 catalytic subunit (PRKAA2) mRNA	Homo sapiens mRNA for rapa-2 (rapa gene)	Homo sapiens mRNA for rapa-2 (rapa gene)	Bacteriophage P1 replication region Including repA, parA, and parB genes and IncA, IncB, and IncC Incompatibility determinants	Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA	wp14d10.x1 NCI_CGAP_Lu19 Homo saplens cDNA clone IMAGE:2464819 3' similar to TR:073634 073634 NEURAL CELL ADHESION MOLECULE.;	wp14d10.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2464819 3' similar to TR:073634 073634	NEURAL CELL ADHESION MULECULE:	Homo sapiens mKNA for putative ankyrin-repeat containing protein (ORF1)	Homo sapiens v-fos FBJ murthe osteosarcoma viral oncogene homolog (FOS), mRNA	Homo sapiens v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS), mRNA	Human endogenous retrovirus HERV-K10	Human MDS1A (AML1/MDS1 fusion) mRNA, partial cds	Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds	Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds	Homo sepiens chromosome 21 unknown mRNA
Top Hit Database Source	EST_HUMAN	EST_HUMAN	Z	· LN	Į.	F	님	뉟	Ę	뉟	N N	Ę	Σ	Į.	F	ΤN	Į	Ľ.	EST HUMAN		EST HUMAN	L	LZ.	NT	ΤN	LN.	FN	TN	브
Top Hit Acessian No.	0.0E+00 A1632569.1	0.0E+00 AU123664.1	7363436 NT	7363436 NT	7706239 NT	0.0E+00 AF211189.1	7662401 NT	7662401 NT	4502398 NT	5803067 NT	AF110763.1	0.0E+00 7657038 NT	5453965 NT	5453965 NT	0.0E+00 AJ277276.1	AJ277276.1	K02380.1	7427522 NT	0.0E+00 AI835159.1	1	0.0E+00 AI935159.1	0.0E+00 AJZ78120.1	655232 NT	6552332 NT	M14123.1	0.0E+00 U43293.1	AF045452.1	0.0E+00 AF045452.1	AF231922.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	L	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 M14123.1				0.0E+00
Expression Signal	0.79	4.18	1.15	1.15	6.29	1.51	1.13	1.13	1.05	2.77	1.38	2.15	1.05	1.05	1	1	5.55	1.31	6.12		5.12	1.66	6.24	6.24	1.06	6.79	1.85	1.85	0.99
ORF SEQ ID NO:	29344	29379				28386	29401	29402	29403	29406				29421			29427		28435	_		29441			. 29456	29461	29469		29478
SEQ ID NO:	16419	16456	16462	1		16466	16483		16484	l	ı	16501				16505	16508		16515		1				16531	16536	16544	16544	18551
Probe SEQ ID NO:	3369	3407	3414	3414	3417	3418	3436	3438	3437	3441	3450	3455	3456	3458	3459	3420	3460	3463	3469	6	3469	3473	3479	3479	3485	3490	3497	3497	3504

Page 504 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		_	_		_		_	_	_	_	,		_		_		-			_	_	_		_			_							
ongo Exert Todos Expressor II Done Mariow	. Top Hit Descriptor	601143853F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3051373 51	601143853F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3051373 51	Homo saplens potassium voltage-gated channel, Isk-related family, member 2 (KCNE2) mRNA	TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303)	te35g12.XI Soares_NH-IMPU_S1 Homo saplens cDNA clone IMAGE:2088742.3' similar to TR:000498 000498 MYASTHENIA GRAVIS AUTOANTIGEN GRAVIN ;	Human endogenous retroviral DNA (4-1), complete retroviral segment	Homo sapiens mRNA for KIAA1153 protein, partial cds	Homo sapiens mRNA for KIAA1153 protein, partial cds	AV701869 ADB Homo sapiens cDNA clone ADBDAH06 5'	Homo sapiens semenogelin II (SEMG2) mRNA	Homo sapiens homologous yeast 44.2 protein mRNA, complete cds	Novel human gene mapping to chomosome X	Homo saplens mRNA for KIAA1476 protein, partial cds	Homo sapiens hypothetical protein FLJ20080 (FLJ20080), mRNA	Homo saplens saf (Drosophila)-like 1 (SALL1), mRNA	Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA	Homo sapiens butyrophilin, subfamily 3, member A3 (BTN3A3), mRNA	QV0-CT0225-230300-169-e01 CT0225 Homo sapiens cDNA	Homo saplens gamme-glutamylcysteine synthetase (GLCLC) gene, partial cds	602084583F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4248596 5'	QV0-DT0047-170200-123-g01 DT0047 Homo saplens cDNA	602152486F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293645 5'	602152486F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293645 5'	Homo saplens retinoblastoma-binding protein 2 (RBBP2) mRNA	hi84g01.x1 Soares_NFL_T_GBC_S1 Homo capiens cDNA clone IMAGE:2979024 3'	hi84g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979024.31	Homo sapiens heparan sulfate (glucosamine) 3-0-sulfotransferase 1 (HS3ST1) mRNA	Homo sapiens KIAA0806 gene product (KIAA0806), mRNA	Homo sapiens midline 1 (Opitz/BBB syndrome) (MID1) mRNA	Homo saplens midline 1 (Opitz/BBB syndrome) (MID1) mRNA	Homo saplens mRNA for G protein-coupled inward rectifier potassium channel, complete cds	Homo saplens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA	Homo saplens WAVE2 mRNA for WASP-family protein, complete cds
1 SOCIAL LILOW	Top Hit Database Source	EST_HUMAN	EST_HUMAN	N	SWISSPROT	EST_HUMAN	Z	LN	N	EST_HUMAN	Z	ĮN	NT	LN LN	Z	Z	NT	Z	EST_HUMAN	Z	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	N	EST_HUMAN	EST_HUMAN	L <sub>N</sub>	۲Z	NT	LN	NT	L	NT
Sign	Top Hit Acession No.	0.0E+00 BE304791.1	0.0E+00 BE304791.1	4826795 NT	00 014867	00 AI384007.1	00 M10976.1	0.0E+00 AB032979.1	0.0E+00 AB032979.1	0.0E+00 AV701869.1	4506884 NT	0.0E+00 AF078868.1	0.0E+00 AL133204.1	00 AB040909.1	8923087 NT	6997248 NT	6997248 NT	6325463 NT	00 AW852217.1	00 AF118846.1	DO BF676393.1	00 AW937977.1	DO BF672054.1	00 BF672054.1	4826967	00 AW664693.1	AW664693.1	0.0E+00 4826763 NT	7662319 NT	4557752 NT	4557752 NT	00   D87327.1	, 7669491 NT	00 AB026542.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	2.29	2.29	1.07	1.24	0.88	1.08	0.92	0.92	1.38	0.92	1.03	0.82	1.21	1.33	1.16	1.16	1.06	4.69	1.35	10.61	1.04	1.46	1.46	0.84	0.84	0.84	0.83	1.03	0.67	0.67	3.11	10.78	16.15
	ORF SEQ ID NO:	29486			29491			29513		29522					739244	29551	29552				29564		29585			29588		L	29596		29605			29637
	Exan SEQ ID NO:		16562		16567	16572	16575	16589	16589	16597	16598	16600	16609	16612	16623	16633	16633	16635	16640	16647	16648	16661	16672	16872	16673	16675	16675	16679	16681	16689			16707	16724
	Probe SEQ ID NO:	3516	3516	3519	3521	3526	3529	3543	3543	3551	3552	3554	3563	3567	3578	3588	3588	3590	3595	3602	3603	3617	3629	3629	3630	3632	3632	3636	3638	3646	3646	3661	3664	3681

WO 01/57276

Page 505 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds	Homo saplens SH2-containing protein Nsp2 mRNA, complets cds	Homo sapiens chromosome 21 segment HS21C004	Homo sapiens chromosome 21 segment HS21C004		Homo sapiens matrix metalloproteinase 24 (membrane-inserted) (MMP24), mRNA	П		Homo sapiens mRNA for KIAA0910 protein, partial cds	Homo sapiens mRNA for KIAA0910 protein, partial cds	Homo sapiens KIAA0670 protein/acinus (KIAA0670), mRNA		UMAN UI-H-BW0-ajs-e-12-0-UI,s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2733022 3'		Human gene for Type XIX collagen at chain, exon 6	aa06g01.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:812496 5' similar to UMAN SW:KRB4 SHEEP P02445 KERATIN, HIGH-SULFUR MATRIX PROTEIN, IIIB4. [1];	Г	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA	Homo sapiens mRNA for KIAA1414 protein, partial cds	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA	Homo sapiens ribosomal protein S2 (RPS2) mRNA	Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA	Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA	Homo sapiens plasminogen activator inhibitor, type II (arglnine-serpin) (PAI2) mRNA	Pan troglodytes olfactory receptor (PTR208) gene, partial cds	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA	Gorilla gorilla offactory receptor (GGO71) gene, partial cds		П	Homo sapiens protocadherin beta 3 (PCDH-beta3) mRNA, complete cds	Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA
The second secon	Top Hit Acession Database Source	NT	N	攴	TN	EST_HUMAN	29928 NT	NT.	SWISSPROT	NT	IN	32237 NT		EST_HUMAN	EST_HUMAN	FN	EST HUMAN	N	57468 NT	TN	7662183 NT Homo sapiens Kl	4506718 NT Homo sapiens rib	7657065 NT Homo sapiens v		05594 NT	NT	57468 NT	7657468 NT Homo sapiens sir	NT	IN	EST_HUMAN	L.	4758199 NT Homo sapiens de
		0.0E+00 AF124250.1	0.0E+00 AF124250.1	0.0E+00 AL163204.2	0.0E+00 AL163204.2	0.0E+00 AW851714.1	0	0.0E+00 AB018339.1	0.0E+00 O14867	0.0E+00 AB020717.1	0.0E+00 AB020717.1	0.0E+00	0.0E+00	0.0E+00 AW298134.1	0.0E+00 AW298134.1	0.0E+00 AB00463	0.0E+00 AA463659.1	0.0E+00 AB020710.1	0.0E+00	0.0E+00 AB037835.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 AF179733.1	0.0E+00	0.0E+00	0.0E+00 AF127851.1	0.0E+00 AF127851.1	0.0E+00 AI377699.1	0.0E+00 AF152496.1	0.0E+00
	Expression (Signal	4.02	4.02	1.6	1.6	1.34	2.88	1.37	0.72	1.45	1.45	-	1	4.6	4.6	1.47	1.06	0.76	3.92	0.77	5.64	19.76	0.97	0.97	0.92	3.15	2.76	2.76	0.91	0.91	1.01	1.81	26.0
	ORF SEQ ID NO:	29639	29640	29647	29648	29651					29660	29862	29663	29672	29673	29698	29697			29713	29723	29726						29780	29787		29789		29790
	Exan SEQ ID NO:	16728	16728	16735	16735		•				16746	l				16784	16785	16789	16792	16801	16814	16817	16822					16877	16883	16883	16884		16886
	Probe SEQ ID NO:	3685	3685	3692	3692	3692	3697	3699	3701	3703	3703	3705	3705	3719	3719	3742	3743	3747	3750	3760	3772	3775	3781	3781	3784	3834	3837	3837	3843	3843	3844	3845	3846

Page 506 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

							Onigio Exori I tobes Expressed in police wallow
Probe SEQ ID NO:	Exen SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
3850	16890	29794	16.29	0.0E+00	0.0E+00 S78685.1	Ę	Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, complete ods
3852	l		2.25	0.0E+00	7710148 NT	LN T	Homo sapiens methyl CpG binding protein 2 (MECP2), mRNA
3853	16893	29797	1.54	0.0E+00	7662183 NT	. TN	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA
3857		29800	1.1	0.0E+00	4504534 NT	M	Homo sapiens 5-hydroxytryplamine (serotonin) receptor 1D (HTR1D) mRNA
3862			1.15	0.0E+00		IN	Homo saplens gene for TMEM1 and PWP2, complete and partial cds
3862	16901	29806	1.15	0.0E+00	AB001523.1	TN	Homo sapiens gene for TMEM1 and PWP2,complete and partial cds
3863			0.77	0.0E+00		N	Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA
3868		29815	71.17	0.0E+00	4503178 NT	뒫	Homo sapiens chromosome X open reading frame 5 (CXORF5) mRNA
3868	16907	29816	71.17	0.0E+00	4503178 NT	뉟	Homo sapiens chromosome X open reading frame 5 (CXORF5) mRNA
3870	16909		4.34	0.0E+00		뉟	Human zinc finger protein ZNF134 mRNA, complete cds
3871	16910		1.13	0.0E+00	0.0E+00 AF114488.1	된	Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds
3874	16913		1.29	0.0E+00	4826783 NT	Þ	Homo sapiens potassium voltago gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA
3877	16916		1.3	0.0E+00	AF012615.1	N	Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 11
3878	16917	29826	2.38	0.0E+00	4759171 NT	E	Homo sapiens SC35-interacting protein 1 (SRRP129), mRNA
3880	16919			0.0E+00	AF099117.1	뉟	Homo sapiens amphiphysin gene, partial cds
3889	16929	29838	2.34	0.05+00		FST HUMAN	wk01f01.x1 NCI_CGAP_Lym12 Home sapiens cDNA clone IMAGE:2411065 3' similar to TR:O43340 O43340 R28830_2 :contains element PTR7 repetitive element
3892	上	29842	13.72	0.0E+00	4506742	Į.	Homo sapiens ribosomal protein S8 (RPS8), mRNA
3897		29848	1.39	0.0E+00	AL040338.1	T HUMAN	DKFZp434N0413_r1 434 (synonym: htes3) Homo saplens cDNA clone DKFZp434N0413 5'
3903		29855	1.34	0.0E+00	6005887		Homo sapiens AP1 gamma subunit binding protein 1 (AP1GBP1), mRNA
3903		29856	1.34	0.0E+00	6005887 NT	NT	Homo sapiens AP1 gamma subunit binding protein 1 (AP1GBP1), mRNA
3904			1.78	0.0E+00		NT	Homo sapiens glutamate receptor, metabotropic 3 (GRM3) mRNA
3906			1.75	0.0E+00	4505078 NT	NT	Homo sapiens melanoma antigen, family B, 1 (MAGEB1) mRNA
3910			1.06	0.0E+00	AF149412.1	TN	Homo sapiens HBP17 heparln-binding and FGF-binding protein gene, complete cds
3924		29877	1.17	0.0E+00	4506758 NT	NT	Homo saplens ryanodine receptor 3 (RYR3) mRNA
3928	16968	29881	1.3	0.0E+00	4585642 NT	NT	Homo sapiens zinc finger protein (KIAA0412) mRNA
3936	16976	29890	1.64	0.0E+00	0.0E+00(BF355295.1	EST_HUMAN	RC3-HT0860-170800-011-a12 HT0860 Homo sapiens cDNA
3937	16977	29891	1.05	0.0E+00	+00 AW888221.1	EST HUMAN	MXRA5 Human matrix tissue expression library Homo sapiens cDNA clone incyte 1996726 similar to MXRA5 Matrix remodeling associated gene 5
3037	16077	COBOC	4.05	00+30	O OF +00 AW(888224 1	ERT LIMANI	MXRA5 Human matrix tissue expression library Homo sapiens cDNA clone Incyte 1996726 similar to MXRA5 Matrix remodeline especiated game 6
3947		29902	1.85	0.0E+00		LO LO	Homo sapiens F-box protein Fbl3b (FBL3B) mRNA, partial cds
	1				ı		

Page 507 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	601236966F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608800 5'	PM3-LT0031-100100-003-h09 LT0031 Homo sapiens cDNA	Homo sapiens cancer-testis antigen CT10 (CT10) gene, complete cds	Homo sapiens cancer-testis antigen CT10 (CT10) gene, complete cds	Human MHC class III ymphocyte antigen DPw4-beta-2 pseudogene, exon 2	Homo saplens chromosome 21 segment H321C103	Homo saplens chromosome 21 segment HS21C084	Homo sapiens chromosome 21 segment HS21C068	mrg=mas-related [human, Genomic, 2416 nt]	Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA	tt66g08.x1 NCJ_CGAP_GC6 Hamo sapiens cDNA clone IMAGE:2244734 3' similar to TR:060309 O60309 KIAA0563 PROTEIN.;	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA	Human zinc finger protein ZNF133	Chlorocebus aethlops mRNA for ribosomal protein S4X, complete cds	Homo sapiens mRNA for UGA suppressor tRNA-associated antigenic protein (tRNA48 gene)	Homo saplens chromosome 21 segment HS21C003	Homo sapiens mRNA for rapa-2 (rapa gene)	Homo sapiens mRNA for rapa-2 (rapa gene)	Homo sapiens retinoblastoma-binding protein 4 (RBBP4) mRNA	Homo saplens retinoblastoma-binding protein 4 (RBBP4) mRNA	Homo sapiens phosphoribosy/glychamide formy/transferase, phosphoribosy/glycinamide synthetase, phosphoribosy/aminolmidazole synthetase (GART) mRNA	Homo sapiens G protein-coupled receptor 21 (GPR21), mRNA	Homo sapiens mRNA for KIAA0287 gene, partial cds	Homo saplens IMP (Inosine monophosphate) dehydrogenase 1 (IMPDH1), mRNA	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes	ze55e09.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:362920 5' similar to contains Alu	repetitive element,	Homo sapiens DGCR8 (DGCR8) mRNA, complete cds	Horno saplens protein kinase, X-linked (PRKX) mRNA	Homo sapiens protein kinase, X-IInked (PRKX) mRNA	Homo sapiens butyrophilin, subfamily 3, member A2 (BTN3A2), mRNA	Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA
Top Hit Database Source	EST_HUMAN 6	EST_HUMAN F	TN.	TN T	FA P	TN TN	⊢ LN	IN.	LN		EST HUMAN K		± E	LN FN	TN FN	TA T		+ +						FN	N-		EST_HUMAN I					
Top Hit Acession No.	BE378602.1	AW580740.1	AF116195.1	AF116195.1	M23910.1	AL163303.2		AL163268.2	S78653.1	4503470 NT	AI657076.1	7662183 NT	U09366.1	AB015610.1	AJ238617.1	AL163203.2	AJ277276.1	AJ277276.1	5032026 NT	5032026 NT	4503914 NT	4885306 NT	AB006625.1	11419297	AL096857.1		AA018975.1	AF165527.1	4826947 NT	4826947 NT	5901905 NT	4503854 NT
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00		0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	3.36	1.06	5.21	5.21	3.56	6.54	3.12	1.59	0.99	56.15	1.47	1.13	1.57	5.87	3.81	1.14	2.67	2.67	7.81	7.81	1.27	4.96	1.32	7.49	2.95		1.21	3.26	1.62	1.62	1.26	1.09
ORF SEQ ID NO:	28908	29916	29945				29961	29970	29974			29988	29989	30007		30020	30021	30022	30028	30029	30039		30043	30044	30045			30051	27127	27128		30064
SEQ ID NO:	16992	17001	17039	17039	17049	17052	17060	17069	17074	17085	17091	17093	17094	17111	17119	17127	17128	17128	1	17134	17145	17150	17151	17154	_	1	17156	17162	L_	14177	17175	17178
Probe SEQ ID NO:	3952	3961	4000	4000	4010	4013	4022	4031	4036	4047	4054	4057	4058	4076	4085	4093	4094	4094	4100	4100	4111	4117	4118	. 4121	4122		4123	4129	4138	4138	4143	4144

Page 508 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 509 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

	_	_	_	-		_	-	-	_	-	_	_		_	_		_	_	_	_	_			_	_								
Top Hit Descriptor	Homo saplens myelodysplasia syndrome 1 (MDS1) mRNA	Homo sapiens F-box protein Fbl4 (FBL4) mRNA, partial cds	qd23f06,x1 Scares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1724579 3* similar to contains MER20 b2 MFR20 prenefitive element	Human CBFA3 (Chfa3) cene, partial cds	Homo saplens proprotein convertase subtilisin/kexin type 2 (PCSK2) mRNA	Homo saplens protein kinase C, nu (PRKCN), mRNA	Homo sapiens protein kinase C, nu (PRKCN), mRNA	Human G2 protein mRNA, partial cds	Human G2 protein mRNA, partial cds	Homo sapiens COMPLEMENT COMPONENT C1q RECEPTOR (C1QR), mRNA	Homo sapiens gap Junction protein connexin-36 (CX36) gene, complete cds	Human Ig light chain VL1 region germline (humlv1c2c) gene, partial cds	Homo sapiens plasma membrane calcium ATPase isoform 1 (ATP2B1) gene, alternative splice products,	partial ods	H.sapiens H2B/h gene	H.sapiens H2B/h gene	H. sapiens H4/d gene for H4 histone	H.saplens H4/d gene for H4 histone	Homo sapiens KIAA0390 gene product (KIAA0390), mRNA	Homo sapiens KiAA0390 gene product (KIAA0390), mRNA	Homo sapiens Menkes disease gene, exon 4	Homo sapiens caudal type homeo box transcription factor 4 (ODX4), mRNA	Homo saplens Xq pseudoautosomal region; segment 2/2	Homo sapiens mRNA for KIAA1360 protein, partial cds	Homo sapiens myosin regulatory light chain interacting protein (MIR), mRNA	Homo saplens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds	Homo sapiens ACTN2 gene for alpha-Acturin 2, exon 10	Homo sapiens ACTN2 gene for alpha-Actinin 2, exon 10	24g7 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA	24g7 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA	Homo sapiens HPS1 gene, Intran 5	seq1329 b4HB3MA Cot8-HAP-Ft Homo sapiens cDNA clone b4HB3MA-COT8-HAP-Ft205 5'	seq1329 b4HB3MA Cot8-HAP-Ft Homo sapiens cDNA clone b4HB3MA-COT8-HAP-Ft205 5'
Top Hit Database Source	N <sub>T</sub>	Ę	FST HIMAN	L	Z	. TN	L	F	Ę	F	Ę	FZ		Z	N <sub>T</sub>	IN	Į.	L	Ę	L	N-	ĘZ	F	N	LZ	Z-	Ę	Ę	EST HUMAN	EST_HUMAN	Ę	EST_HUMAN	EST_HUMAN
Top Hit Acession No.	4826827 NT	00 AF174590.1	0.0F+00 AI189844 1		4505646	6563384 NT	8563384 NT	00   U10991.1	J10991.1	6912281 NT	0.0E+00 AF153047.2	J03901.1		.14561.1	280780.1	280780.1	K60483.1	(60483.1	7662091 NT	7662091 NT	(82338.1	4885126 NT	0.0E+00 AJ271736.1	0.0E+00 AB037781.1	7019456 NT	0.0E+00 AF195953.1	0.0E+00 AJ249765.1	0.0E+00 AJ249765.1	N26179.1	N26179.1	0.0E+00 AF200629.1	10233.1	10233.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 U10991.1	0.0E+00	0.0E+00	0.0E+00 U03901.1		0.0E+00 L14561.1	0.0E+00 Z80780.1	0.0E+00 Z80780.1	0.0E+00 X60483.1	0.0E+00 X60483.1	ı					0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00 W26179.1	0.0E+00	0.0E+00 T10233.1	0.0E+00 T10233.1
Expression Signal	0.74	3.59	2.53	5.62	0.92	0.77	0.77	1.15	1.15	9.53	1.12	11.19		4.52	6.75	6.75	1.31	1.31	9.47	9.47	1.22	15	1.23	1.01	1.2	5.71	1.53	1.53	0.88	0.88	2.47	0.63	0.63
ORF SEQ ID NO:	30237	30239			30254	30261	30262	30268		30275		20303		ı	30315	30316	30322	30323	30329	30330	30341	30345	30346				30386	30387	30393	30394		30424	30425
Exon SEQ ID NO:	17351	17353	17360	L		17380	17380	17386		17396	17415	17420		17426	17430	17430	17436	17436	17440	17440	17450	17453	17454	17457	17489	17497	17502	17502	17505	17505		ı	17539
Probe SEQ ID NO:	4322	4324	4332	4336	4347	4353	4353	4359	4359	4369	4387	4392		4398	4402	4402	4408	4408	4413	4413	4423	4426	4427	4430	4463	4471	4476	4476	4480	4480	4495	4514	4514

Page 510 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	Human endogenous retrovirus HERV-K10	x688e08.XI NCI_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:2589446 3' similar to SW.AHNK_HUMAN Q09666 NEUROBLAST DIFFERENTIATION ASSOCIATED PROTEIN AHNAK;	Homo saplens LIM domain kinase 2 (LIMK2), transcript variant 2a, mRNA	wc56b02.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2322603 3' similar to contains MER22.b2	PTR5 repetitive element;	Homo sapiens chromosome 21 segment HS21C007	PM1-HT0305-101199-002-d03 HT0305 Homo sapiens cDNA	Homo sapiens mRNA for putative ankyrin-repeat containing protein (ORF1)	Homo saplens mRNA for putative ankyrin-repeat containing protein (ORF1)	Homo saplens G protein-coupled receptor 50 (GPR50) mRNA	Homo saplens serine-threonine protein kinase (MNBH) mRNA, complete cds	H.sapiens pancreatic polypeptide receptor PP1 gene	Homo sapiens slalytransferase 8 (alpha-N-acetylneuraminate: alpha-2,6-sialytransferase, GD3 synthase)	(SIAT8) mRNA	Homo sapiens ATP-sensitive Inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, exon	Homo sapiens pyrin (MEFV) gene, complete cds	Homo saplens pyrin (MEFV) gene, complete cds	Homo saplens zinc finger protein 195 (ZNF195), mRNA	Homo sapiens synoytin precursor, mRNA, complete cds	Homo sapiens zinc finger protein 211 (ZNF211), mRNA	Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA	Homo sapiens calclum/calmodulin-dependent protein kinase IV (CAMK4) mRNA	Homo sapiens iduronate sulphate sulphalase (IDS) gene, complete cds	Homo sapiens KIAA0390 gene product (KIAA0390), mRNA	Homo sapiens KIAA0390 gene product (KIAA0390), mRNA	Homo sapiens PTEN (PTEN) gene, exons 3 through 5	Homo sapiens mRNA for G7c protein (G7c gene located in the class III region of the major histocompatibility	complex)	Homo sapiens mRNA for G7c protein (G7c gene located in the class III region of the major histocompatibility	complex)	Homo sapiens mRNA for KIAA0795 protein, partial cds	Homo sapiens DNA for amyloid precursor protein, complete cds
Top Hit Database Source	LN LN	EST_HUMAN C			T_HUMAN		EST_HUMAN F	TN TN	TN TN		TN TN	Į.			INT.	1 IN	IN TN		±N FN					I I				+	NT		LN		Į.
Top Hit Acession No.	M14123.1	AW084964.1	8051619 NT				AW381570.1	AJ278120.1	AJ278120.1	4758467 NT	AF108830.1	Z66526.1		4506952 NT	S78684.1	AF111163.1	AF111163.1	F005973 NT	J AF208161.1	5454175 NT	4503470 NT	4503098 NT	4502556 NT	L35485.1	7662091 NT	7662091 NT	0.0E+00 AF143314.1		AJ245418.1		AJ245418.1	0.0E+00 AB018338.1	D87675.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00		ı		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00		0.0E+00	0.0E+00	0.0E+00
Expression Signal	6.0	3.45	1.85		1.09	8.59	1.96	1.2	1.2	1.73	2.8	0.94		0.96	0.93	1.91	1.91	2.31	6.31	1.32	30.53	1.62	1.4	2.89	13.95	13.95	1.97		10.93		10.93	1.21	46.99
ORF SEQ ID NO:		30441			30444		30449	30456	30457	30459	30460	30466			30473	30474	30475	30486	30491	30501	30510	30518	30524		30526	30527	30540		30543			30545	
Exon SEQ ID NO:	17542	17553	18318		- 1		17562	17568	17568	17570	17571	17576			17582	17583	17583	18319	17597	17604	17616	17626	17631	17635	17637	17637	17653		17656			17658	17666
Probe SEQ ID NO:	4517	4529	4531		4533	4537	4539	4545	4545	4547	4548	4563		4554	4559	4560	4560	4570	4575	4582	4595	4605	4610	4614	4816	4616	4632		4635		4635	4637	4645

WO 01/57276

Page 511 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	zp18g08.s1 Stratagene fetal retina 937202 Homo saplens cDNA clone IMAGE:609854 3'	Homo sapiens odz (odd Oz/ten-m, Drosophila) homolog 1 (ODZ1), mRNA	Homo saplens chromosome 21 segment HS21 C084	yt92b01.s1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone iMAGE:231721 3'	y92b01.s1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:231721 3'	Homo sapiens cyclophilln-related protein (NKTR) gene, complete cds	Homo sapiens chromosome 21 segment HS21C100	Homo sapiens gene for natriuretic protein, partial cds	Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds	Novel human gene mapping to chomosome 1	Homo sapiens keratin 18 (KRT18) mRNA	Homo sapiens keratin 18 (KRT18) mRNA	Mus musculus E-cadherin binding protein E7 mRNA, complete cds	Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds	Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds	Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds	Homo sapiens mRNA for KIAA1047 protein, partial cds	Homo sapiens mRNA for KIAA1047 protein, partial cds	Human endogenous retrovirus type K (HERV-K), gag, pol and env genes	Homo sapiens truncated tenascin XB (TNXB) gene, partial cds and TNXA gene recombination breakpoint	Homo sapiens mRNA for KIAA1399 protein, partial cds	Homo sapiens mRNA for KIAA1399 protein, partial cds	Human displacement protein (OCAAT) mRNA	Homo saplens butyrophilin, subfamily 2, member A2 (BTN2A2), mRNA	Homo sapiens butyrophilin, subfamily 2, member A2 (BTN2A2), mRNA	ya83g04.r2 Stratagene fetal spleen (#937205) Homo saplens cDNA clone IMAGE:68310 5'	ya83g04.r2 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5'	601158935F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3505521 5'	Homo saplens ecotropic viral integration site 2B (EVI2B), mRNA	Homo sapiens ecotropic viral integration site 28 (EVI2B), mRNA	Human AHNAK nucleoprotein mRNA, 5' end	Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds	Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds
Top Hit Database Source	EST_HUMAN	LN	TN	EST_HUMAN	EST_HUMAN	NT	. TN	TN	LN	FZ	Ŋ	FZ.	FZ	LN TA	۲	ŢN	FN	LN	NT	- LV	LZ	Į,	- LZ	LN	LN	EST_HUMAN	EST_HUMAN	EST_HUMAN	NT	NT	LN	NT	L
Top Hit Acession No.	0.0E+00 AA174072.1	7657410 NT	00 AL163284.2	H92741.1	192741.1	0.0E+00 AF184110.1	00 AL163300.2	00 AB037521.1	00 AF195658.1	0.0E+00 AL162331.1	4557887	4557887 NT	0.0E+00 AF167441.1	78810.1	78810.1			0.0E+00 AB028970.1	00 Y18890.1	OO A ED86641 1	Γ		00 M74099.1	6453812 NT	6453812			0.0E+00 BE278730.1	5729817 NT	5729817 NT			00 M69197.1
Most Similar (Top) Hit BLAST E Value	0.0E+00/	0.0E+00	0.0E+00	0.0E+00 H92741.1	0.0E+00 H92741.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 L78810.1	0.0E+00 L78810.1	0.0E+00/L78810.1	0.0E+00	0.0E+00	0.0E+00	7 00+110 0	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 M69197.1	0.0E+00 N
Expression Signal	1.51	1.62	2.05	96.0	0.95	1.42	5.53	1.84	99.0	1.04	1.89	1.89	1.26	1	1	1	2.03	2.03	6.02	2.24	292	2.92	3.31	2.42	2.42	2.02	2.02	1.22	4.85	4.85	5.55	6.62	6.62
ORF SEQ ID NO:				30565	30566	30567	30568		30569	30576	30579	30580	30581	30592	30593	30594	30595	30596	30602		30619	30620	30621	30624	30625	26174	26175		30651	30652	30657	30660	30661
Exon SEQ ID NO:	ı		17679	17680	17680	17681	17682	17683	17685		17693	17693	17694	17703	17703	17703	17704	17704	17709	17720		17726	17726	17730	17730	13244	13244	17733	17757	17757		- 1	17766
Probe SEQ ID NO:	4654	4656	4658	4659	4659	4660	4661	4662	4664	4669	4672	4672	4673	4682	4682	4682	4683	4683	4688	4699	4704	4704	4705	4709	4709	4711	4711	4713	4737	4737	4743	4746	4746

Page 512 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	Homo sapiens cyclophilln-related protein (NKTR) gene, complete cds	Homo sapiens KIAA1084 protein (KIAA1084), mRNA	Homo sapiens KIAA0563 gene product (KIAA0563), mRNA	SCN1A=brain type I sodium channel alpha-subunit (IIIS5 transmembrane region) [human, placenta, Genomic, 1556 mil	19 of the state of soulising shown of states at the mit fill the second broad and the transment of the souls	SON IA-ofain type i sogium chairtiel apha-subunit (iliss uansmannrane legion) (iluman, pracema, cenomic, 1556 nt)	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes	Human CYP2D7AP pseudogene for cytochrome P450 2D6	Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA	Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA	Homo sapiens alpha-3 type IX collagen (COL9A3) gene, promoter region, and exons 1-26	Homo sapiens G-protein coupled receptor (RE2), mRNA	Homo sapiens G-protein coupled receptor (RE2), mRNA	Homo saplens proteinx0008 (AD013), mRNA	Homo sapiens proteinx0008 (AD013), mRNA	UI-H-BI3-ajw-c-04-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733294 3'	Homo sapiens aldehyde dehydrogenase 12 (ALDH12) mRNA, complete cds	Homo sapiens HSPC024-iso mRNA, complete cds	Human MHC class I transplantation antigen (hla) gene	Human MHC class i transplantation antigen (hia) gene	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1)	genes, complete cds	M.fascicularis mRNA for metalloprotease-like, disintegrin-like protein, IVa	Homo sapiens Williams-Beuren syndrome deletion transcript 9 (WBSCR9) mRNA, camplete cds	Mus musculus zinc finger transcription factor Kaiso mRNA, complete cds	Homo saplens fragile X mental retardation 2 (FMR2) mRNA	Homo sapiens actin, alpha, cardiac muscle (ACTC), mRNA	ZINC FINGER PROTEIN 132	Homo sapiens hypothetical protein DKFZp762E1312 (DKFZp762E1312), mRNA	Homo sapiens hypothetical protein FLJ20073 (FLJ20073), mRNA	Human Tcr-C-delta gene, exons 1-4; Tcr-V-delta gene, exons 1-2; T-cell receptor alpha (Tcr-alpha) gene, J1- J61 segments; and Tcr-C-alpha gene, exons 1-4
Top Hit Database Source	NT TN			SC			NT	NT			NT TN					T_HUMAN				NT H		NT	NT M.	NT	NT ME			SWISSPROT ZII			H. NT J6
Top Hit Acession No.	0.0E+00 AF184110.1	7662479 NT	7662181 NT	C74446 4	Ī		<u></u>		7304922 NT	7304922 NT	0.0E+00 AF026801.1	F677700 NT	FN 0027799	7019320 NT	7019320 NT	0.0E+00 AW444637.1						0.0E+00 AF240786.1		0.0E+00 AF084479.1	0.0E+00 AF097416.1	4503766 NT	4885048 NT		8922180 NT	8923080 NT	0.0E+00 M94081.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	00-30	0.100	0.0E+00	0.0E+00 AL096857	0.0E+00 X58467.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 J00191.1	0.0E+00 J00191.1		0.0E+00	0.0E+00 X87205.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 P52740	0.0E+00	0.0E+00	0.0E+00
Expression Signal	2.21	24.63	2.9	80.0	6:5	96:0	96.0	1.25	0.81	0.81	1.56	1.12	1.12	1.12	1.12	1.49	66.0	1.83	0.68	0.68		4.64	1.6	0.93	1.29	3.04	13.14	1.37	1.65	4.6	1.75
ORF SEQ ID NO:	30666	30668	30669	30878	2000	30676	30681		30691	30692	30701	30704		30707	30708	30740	30749			30779			30788	30790	30791			30795		30801	30805
SEQ ID NO:	17770	17772	17774	47780	3	17780	17785	17790	17801	17801	17809	17812	17812	17814	17814	17842	17848	17849	17890	17890		17896	17899	17901	17902	17903	17905	17906	17908	17911	17915
Probe SEQ ID NO:	4750	4752	4754	4780	3	4760	4765	4770	4781	4781	4792	4795	4795	4797	4797	4825	4831	4832	4873	4873		4879	4882	4884	4885	4886	4888	4889	4891	4894	4898

Page 513 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		_	_	-		_		-	_	_	-	_		-	_	_	-	-	_				_	<del>-</del> -	_	_	_	_	_	
Top Hit Descriptor	Human Tor-C-delta gene, exons 1-4; Tor-V-delta gene, exons 1-2; T-cell receptor alpha (Tor-alpha) gene, J1- J61 segments; and Tor-C-alpha gene, exons 1-4	H.sapiens MeCP-2 gene	H.sapiens MeCP-2 gene	Homo sapiens chromosome 21 segment HS21C080	Homo sapiens TATA box binding protein (TBP)-associated factor, RNA polymerase II, I, 28kD (TAF2I) mRNA	H.sapiens MICA gene	Homo sapiens zinc finger protein (KIAA0412) mRNA	Homo sapiens mRNA for KIAA1443 protein, partial cds	H. sapiens fertilin alpha pseudogene	Homo sapiens mRNA for KIAA0633 protein, partial cds	Mus musculus zinc finger protein interacting with K protein 1 (Zik1), mRNA	Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA	Homo saplens gene encoding filensin, exon 8	Homo sapiens zinc-finger DNA-binding protein (HUMHOXY1), mRNA	Homo sapiens mRNA for immunoglobulin kappa light chain, anti-RhD, therad 7	Homo sapiens MHC class 1 region	Hamo sapiens opioid receptor, delta 1 (OPRD1) mRNA	Homo sapiens splice variant AKAP350 mRNA, partial cds	Homo sapiens flavin containing monooxygenase 3 (FMO3) gene, exon 7	Homo sapiens COL4A6 gene for a6(IV) collagen, exon 44 and partial cds	Homo sapiens farnesyi diphosphate synthase (farnesyi pyrophosphate synthetase, dimethylallytranstransferase, geranytranstransferase) (FDPS) mRNA	qm15i05.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1881921 3' similar to TR:Q61632 Q61632 EN-2/LACZ FUSION PROTEIN :	Homo sapiens glypican 4 (GPC4) mRNA	Homo sapiens glypican 4 (GPC4) mRNA	Homo sapiens chromosome 21 segment HS21C084	Homo sapiens KIAA0806 gene product (KIAA0806), mRNA	Human ribosomal protein L21 mRNA, complete cds	Human endogenous retroviral DNA (4-1), complete retroviral segment	601303729F1 NIH_MGC_21 Homo saplens cDNA clone IMAGE:3638118 5'	Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA
Top Hit Database Source	FN	Z	Ę	Z	F	Z	Z	Z	N	Z	N	NT	LN	LN	. IN	TN	IN	NT	NT	IN	IN	EST HUMAN	NT	NT	L	FZ	LN FX	NT	EST_HUMAN	LZ
Top Hit Acession No.	00 M94081.1	00 X94628.1	00 X94628.1	00 AL163280.2	5032150 NT	(92841.1	4585642 NT	0.0E+00 AB037864.1	00 Y09232.1	30 AB014533.1	6677648 NT	4758199 NT	/16723.1	7705546 NT	0.0E+00 AJ010442.1	0.0E+00 AF055068.1	4505508 NT	30 AF091711.1	J39965.1	)63562.1	4503684 NT	0.0E+00 A 291129.1	4504082 NT	4504082 NT	0.0E+00 AL163284.2	7862319 NT	114967.1		0.0E+00 BE408863.1	4758199 NT
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00.	0.0E+00	0.0E+00	0.0E+00 X92841.1	0.0E+00	0.0E+00/	0.0E+00)	0.0E+00	0.0E+00	0.0E+00	0.0E+00 Y16723.1	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00 U39965.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 U14967.1	0.0E+00 M10976.1	0.0E+00	0.0E+00
Expression Signal	1.75	1.49	1,49	2.38	1.16	1.59	1.34	0.69	1.25	1.17	2.3	1.49	0.97	1.15	25.08	25.15	1.97	2.01	0.91	0.99	1.62	96.0	0.93	0.93	1.88	1.24	6.04	1.06	2.79	3.2
ORF SEQ ID NO:	30806		L	30812			30832	30833	30834	30835			30839	30840		30844		30847		30857	30859		30878	30879				30918		30922
Exon SEQ ID NO:	17915	17917	17917	17920	17929	17938	17940	17941	17942	17943	17944	17946	17947	17948	17949	17952	17954	17955	17957	17967	17969	17976	179871	17987	18005	18010	18022	18032	18034	18037
Probe SEQ ID NO:	4898	4900	4900	4903	4912	4921	4923	4924	4925	4928	4927	4929	4930	4931	4932	4936	4938	4939	4941	4952	4954	4961	4972	4972	4990	4995	2008	5018	5020	5023

Page 514 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 515 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

					,		
Probe SEQ ID NO:	Exan SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
5324	18430	31182	2.03	0.0E+00	AF137286.1	NT	Homo saplens keratin 12 (KRT12) gene, complete cds
5346	18451	31322	1.19	0.0E+00	A1934954.1	EST_HUMAN	wp06g08.x1 NCI_CGAP_Kid12 Homo saplens cDNA clone IMAGE:2464094 3'
5349	18454	31325	1.2	0.0E+00	9256579 NT	LN TA	Homo sapiens protocadherin alpha 13 (PCDHA13), mRNA
5364	18469		4.04	0.0E+00	BE931080.1	EST_HUMAN	RC3-GN0076-310800-013-b03 GN0076 Homo sapiens cDNA
5368	18473	31344	2.93			NT	Homo saplens polycystic kidney disease-like 2 protein (PKDL2) mRNA, complete cds
5368	18473	31345	2.93		AF182034.1	NT	Homo sapiens polycystic kidney disease-like 2 protein (PKDL2) mRNA, complete cds
5376	18480	31354	32.34	0.0E+00		TN	H.sapiens immunoglobulin heavy chain gene, variable region
5376	18480	31355		0.0E+00	X56163.1	NT	H.sapiens immunoglobulin heavy chain gene, variable region
5457	18559	31470	6.37	0.0E+00	BE675498.1	EST_HUMAN	7110c06.x1 NCL CGAP_CLL1 Homo saplens cDNA clone IMAGE:3294250 3'
5458	18560	31471	1.72		BE220753.1	EST_HUMAN	ht99a02.x1 NCI_CGAP_Lu24 Homo saplens cDNA clone IMAGE:3166194 3' similar to SW:Y064_HUMAN P42694 HYPOTHETICAL PROTEIN KIAA0054.;
5459	18561	31472	1.69	0.0E+00	BE794412.1	EST_HUMAN	601589422F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943804 5'
5459	18561	31473	1.69	0.0E+00	BE794412.1	EST_HUMAN	601589422F1 NIH_MGC_7 Hamo sapiens cDNA clone IMAGE:3943804 5'
5460	18562	21474	29 0	00+30.0	A1480142 1	FST HIMAN	qd04a04.x1 Soares_placenta_gto9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1722702.3' similar to SW:72D3_DROME P49846 TRANSCRIPTION INITIATION FACTOR TRID 85 KD SUBUNIT:
5464	18566	31477		0.0E+00	M29908.1	N	Homo sapiens eosinophil peroxidase (EPP) gene, exon 7
5468	18570	31480	0.56	0.0E+00	AI791363.1	EST_HUMAN	oh68a09.y5 NCI_CGAP_Kid5 Homo saplens cDNA clone IMAGE:1472152 5' similar to gb:M18512 IG HEAVY CHAIN PRECURSOR V-I REGION (HUMAN);
5478	25639	31488	4.25	0.0E+00	21038	ΙΝ	Homo sapiens Sp4 transcription factor (SP4), mRNA
5488	18588		1.72	0.0E+00	BF665962.1	EST_HUMAN	602118928F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4276254 5'
5489	18589	31499	0.77	0.0E+00	AU134406.1	EST_HUMAN	AU134406 OVARC1 Hamo sapiens cDNA clone OVARC1001894 5'
5489	18589	31500	22.0	0.0E+00	AU134406.1	EST_HUMAN .	AU134406 OVARC1 Hamo sapiens cDNA clone OVARC1001894 5'
5495	18595	31507	0.64	0.0E+00		EST_HUMAN	601061489F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3447839 5'
5504	18604	31533	1.22	0.0E+00	BE292784.1	<b>EST_HUMAN</b>	601105891F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988310 5'
5509	18609		2.05	0.0E+00	BF526328.1	EST_HUMAN	602071372F1 NCI_CGAP_Bm64 Homo saplens cDNA clone IMAGE:4214272 5'
5509	18609		2.05	0.0E+00	BF526328.1	EST_HUMAN	602071372F1 NCL_CGAP_Bm64 Homo saplens cDNA clone IMAGE:4214272 5'
5529	20048	33350	2.31	0.0E+00	4557364 NT	TN	Homo sapiens Bloom syndrome (BLM) mRNA
5532	18630	31567	1.03	0.0E+00		Ŋ	Homo sapiens mRNA for KIAA0468 protein, partial cds
5532	18630	31568	1.03	0.0E+00		L	Homo sepiens mRNA for KIAA0466 protein, partial cds
9839	18633	31572	4.25	0.0E+00	AF257737.1	LN	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
5536	18633	31573	4.25	0.0E+00	1.	N	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
5550	18647			0.0E+00		۲.	Human gene for dihydrollpoamide succinyltransferase, complete cds (excn 1-15)
5550	18647	31590	1.18	0.0E+00	D26535.1	N	Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15)

Page 516 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

					9		
Probe SEQ ID S NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
9999	18663	31623	1.8	0.00+00	11420819 NT	NT	Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA
5572	18668		1.55	0.0E+00	Z38133.1	TN	H.sapiens mRNA for myosin
	1000			Lo	, , , , ,		HUM418D05B Ciontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-418D05
LACC	200	STOSS	0.87	0.05+00	D01304.1	ES HOMAN	D
5591	18687	31656	0.87	0.0E+00	D61564.1	EST_HUMAN	HUM418D05B Ciontech human fetal brain polyA+ mRNA (#8535) Homo sapiens cDNA clone GEN-418D05 5
5594	18690	31660	3.21	0.0E+00	BF529931.1	EST_HUMAN	602042322F1 NCL CGAP_Brn67 Homo saplens cDNA clone IMAGE:4179988 5
5594	18690		3.21	0.0E+00	BF529931.1	EST_HUMAN	602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179988 5'
5599	18695	31665	2.24	0.0E+00	BF313139.1	EST_HUMAN	601897658F1 NIH_MGC_19 Homo saplens cDNA clone IMAGE:4126815 5'
5610	18706	31863	3.88	0.0E+00	11434392 NT	LZ	Homo sapiens calcium channel, voltage-dependent, alpha 1G subunit (CACNA1G), mRNA
5626	18722	31881	0.57	0.0E+00	A1928181.1	EST_HUMAN	wo95b02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463051 3' similar to TR:075054 O75054 KIAA0466 PROTEIN;
acan	4 8 7 0 0	24.00	0 57	001110	A1000464 4	INOM!	wo95b02.xt NCI_CGAP_Kid11 Homo saplens cDNA clone IMAGE:2463051 3' similar to TR:O75054
5644	18740			_	BE260777.1	EST HUMAN	601150252F1 NIH MGC 19 Home sapiens cDNA clone IMAGE:3502909 5'
5653	18749			0.0E+00	AW867316.1	EST HUMAN	MR0-SN0037-030400-001-h07 SN0037 Homo sapiens cDNA
5668	18763	31932	2.41		BE292889.1	EST_HUMAN	601105291F1 NIH_MGC_15 Homo sepiens cDNA clone IMACE:2987903 5'
5668	18763	31933	2.41	0.0E+00	BE292889.1	EST_HUMAN	601105291F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987903 5'
5689	18784	31955	1.79	0.0E+00	11420819 NT	NT	Homo saplens offactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA
5689	18784	31956	1.79	0.0E+00	11420819 NT	LN	Homo sepiens offactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA
2697	18792	31964	4.3	0.0E+00	AF084254.1	NT	Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds
5697	18792			ı		NT	Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds
5704	18799			0.0E+00		LN	Homo saplens Surf-5 and Surf-6 genes
5704	18799	31976	2.98	0.0E+00	AJ224639.1	NT	Homo sapiens Surf-5 and Surf-6 genes
5735	18829	32007	. 0.7	0.0E+00	AI198515.1	EST HUMAN	qf94g10.x1 Soares_placenta_8t09weeks_2NbHP8to9W Homo saplens cDNA clone IMAGE:1757730 3' similar to SW:CADC_HUMAN P55239 BRAIN-CADHERIN PRECURSOR;
5739	18833	32013	7.46	0.0E+00	M85719.1	EST HUMAN	EST02238 Fetal brain, Stratagene (cat#936206) Homo saplens cDNA clone HFBCM48
5746	18840	L	582	0.0E+00	AW 405472.1	EST_HUMAN	UI-HF-BL0-adh-d-02-0-UI.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3061658 51
5759	18852	32032	1.19	0.0E+00	Z26269.1	LN	H.sapiens isoform 1 gene for L-type calclum channel, exon 14 adnd 15
5771	18863		1.87		AW361877.1	EST_HUMAN	PM3-CT0263-091299-007-h05 CT0263 Homo sapiens cDNA
5771	18863	32043	1.87	0.0E+00	AW361877.1	EST_HUMAN	PM3-CT0263-091299-007-h05 CT0263 Homo sapiens cDNA
5771	18863			0.0E+00		EST_HUMAN	PM3-CT0263-091299-007-h05 CT0263 Homo sapiens cDNA
5774	18866			0.0E+00		L	Homo sapiens mRNA for neurexin II, complete cds
5774	18866	32048	0.64	0.0E+00	AB035266.1	NT	Homo sapiens mRNA for neurexin II, complete cds

WO 01/57276 PCT/US01/00668

Page 517 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 518 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

סווולום באחון גומוספר דילון פספר ווי חסופר ואמוסא	Top Hit Descriptor	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5	ha34d06.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2875595 3' similar to TRXQ9Z1N3 Q9Z1N3 MYOSIN-RHOGAP PROTEIN, MYR 7. ;	QV4-HT0894-290900-399-a10 HT0894 Homo sapiens cDNA	QV4-HT0894-290900-399-a10 HT0894 Homo sapiens cDNA	zc08h06.r1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:321755 5	zc08h06.r1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:321755 5	Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 14	601158515F1 NIH MGC 21 Homo sapiens cDNA clone IMAGE:3505323 5	601512630F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914Z38 5	601286320F1 NIH_MGC_44 Homo saplens cDNA clone IMAGE:3613085 51	3-CT0220-111199-028-E04 CT0220 Homo sapiens cDNA	Homo sapiens KIAA0735 gene product, synaptic vesicle protein 2B homolog (KIAA0735), mRNA	Homo sapiens KIAA0735 gene product; synaptic vesicle protein 2B homolog (KIAA0735), mKNA	601677735F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960200 5	601677735F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960200 5	601677735F1 NIH_MGC_21 Homo saplens cDNA clone IMAGE:3960200 5'	Homo sepiens potassium voltage-gated channel, Shal-related subfamily, member 2 (KCND2), mRNA	2740h01,r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:665905 5' similar to sw. xyys in IMAN passax HYPOTHETICAI MYFI OID CELL LINE PROTEIN 5.	2740h01.11 Soares NHHMPu S1 Horno sapiens cDNA clone IMAGE:685905 5' similar to	SW:YY05_HUMAN P42694 HYPOTHETICAL MYELOID CELL LINE PROTEIN 5.;	Human T cell surface glycoprotein CD-6 mRNA, complete cds	Human T cell surface glycoprotein CD-6 mRNA, complete cds	RC3-C70254-110300-027-a09 C70254 Homo sapiens cDNA	RC3-CT0254-110300-027-a09 CT0254 Homo sapiens cDNA	601114823F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3355565 5	QV0-HT0368-090200-099-e09 HT0368 Home sepiens cDNA	Human neurofibromatosis type 1 (NF-1) mRNA, 3' end of cds	601236276F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608490 5	AU137772 PLACE1 Hano sepiens cDNA clone PLACE1007201 5	Human G protein-coupled receptor GPR-9-6 gene, complete cos
XOII FIODES EX	Top Hit Database Source	П	EST_HUMAN 6	EST_HUMAN C	EST_HUMAN C	HUMAN		EST_HUMAN 2		7		EST_HUMAN (	EST_HUMAN I	NT		EST_HUMAN (	EST_HUMAN (	EST_HUMAN (		NAME OF	Т	EST_HUMAN	NT	LΝ		EST_HUMAN	EST_HUMAN	T HUMAN		HUMAN	T HUMAN	NT
	Top Hit Acession No.	BF031742.1	0.0E+00 BF031742.1	0 AW470846.1			0.0E+00 W33069.1	0.0E+00 W33069.1	0.0E+00 AF012618.1	0.0E+00 BE280197.1	BE889610.1	0.0E+00 BE388673.1	1	3071	11433071 NT	0.0E+00 BE901608.1	0.0E+00 BE901608.1	0.0E+00 BE901608.1	TN 9866876	7 00000	0.0E+00 AA 183500.1	0.0E+00 AA193506.1	0.0E+00 U34625.1	U34625:1	0.0E+00 AW853983.1	0.0E+00 AW853983.1	0.0E+00 BE258330.1	0.0E+00 BE156561.1	0.0E+00 M38107.1	0.0E+00 BE379007.1	0.0E+00/AU137772.1	00 U45982.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	La	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
	Expression Signal	0.67	0.67	1.27	0.95	0.95	1.38	1.38	2.28	2.82	2.31	0.53	0.63	1.46	1.46	1.12	1.12	1.12	86.6		34.	1.43	11.54	11.54	0.54	0.54	1.14	1.24	0.53	1.71	1.19	3.66
	ORF SEQ ID NO:	32336	32337	32352	32364	32365	32371	32372		32376	32385	١	32408		32411	32412	32413	32414	32431		32434	32435	32460	32461				32514	L	32558		32590
	Exon SEQ ID NO:	19128	19128	19140	19153	19153	19160	19160	19161	19164	19170	19172		_		19191	<u> </u>		25654		19209	19209	1	L	L	┸	上	19281		L	1	19354
	Probe SEQ ID NO:	6047	6047	6029	6072	6072	9080	0809	6081	6084	609	6093	6109	6112	6112	6113	6113	6113	64.29		6132	6132	6155	6155	6157	6157	6197	6207	6217	6254	929	6282

Page 519 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		_	_	_	_	_		_	_	_		_	_	_	_	_		_	_				_					
Top Hit Descriptor	zq81d03.r1 Stratagene hNT neuron (#937233) Homo saplens cDNA clone IMAGE:648006 5' similar to TR:G854195 G854195 LEUKOCYTE SURFACE PROTEIN.	Homo sapiens xylosytransferase II (XT2), mRNA	Homo sapiens xylosyttransferase II (XT2), mRNA	Human beta2-chimaerin mRNA, complete cds	Homo saplens carcinoembryonic antigen-related cell adhesion molecule 8 (CEACAM8), mRNA	601109532F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350622 6	tt91f10x1 NCI_CGAP_Pr28 Homo septens cDNA clone IMAGE:2248939 3' similar to TR:Q14839 Q14839 MI-2 PROTEIN.	Human anion exchanger (AE1) gene, exons 1-20	601587971F1 NIH MGC 7 Homo sapiens cDNA clone IMAGE:3942329 5	601587971F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942329 5	qi50b11.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1859901 3' similar to TR:Q12838 Q12838 TFIIIC ALPHA SUBUNIT:	qi50b11.x1 NCL_CGAP_Brn25 Homo saplens cDNA clone IMAGE:1859901 3' similar to TR:Q12838 Q12838 TEIIIC AI DHA SI IDIINIT.	MR0-HT0923-220800-102-b05 HT0923 Home sanians cDNA	Homo sapiens neoticle transporter 3 (1 OC51096) mRNA	Human mRNA for albha mannosidase II isozyme, complete cds	L3-HT0062-010999-014-A04 HT0062 Homo saplens cDNA	7e02c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3281302 3' similar to SW:Y176_HUMAN Q14881 HYPOTHETICAL PROTEIN KIAA0176	Homo saplens KIAA0285 gene product (KIAA0285), mRNA	AV650020 GLC Homo sapiens cDNA clone GLCCAD09 3'	UI-HF-BL0-acc-g-12-0-UI.s1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3058751 3'	yi27b03.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:149933 5'	Homo saplens amiloride-sensitive cation channel 1, neuronal (degenerin) (ACCN1), mRNA	Human gene for the light and heavy chains of myeloperoxidase	aa14e07.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:813252 5'	1257408.x1 NCI_CGAP_OX35 Homo sapiens cDNA clone IMAGE:22926873' similar to SW.:NTCS_HUMAN P33796 SODIUM-AND CHLORIDE-DEPENDENT CREATINE TRANSPORTER 2:	601305368F1 NIH_MGC_39 Homo saplens cDNA clone IMAGE:3639616 5'	601305368F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639616 5'	MR0-BT0264-221199-002-f11 BT0264 Homo sapiens cDNA
Top Hit Database Source	EST HUMAN	IN	LN	TN	LN	EST_HUMAN	EST HUMAN	N	EST HUMAN	EST HUMAN	EST HUMAN	TOT LONG	EST HUMAN	L	LZ	EST HUMAN	EST HUMAN	N	EST HUMAN		EST_HUMAN	FZ	LN	EST_HUMAN	EST_HUMAN	Π	Г	EST_HUMAN
Top Hit Acession No.	00 AA204740.1	11545913 NT	11545913 NT	00 U07223.1	11426367 NT	00 BE257173.1	-		0.0E+00 BE797385.1	DO BE797385.1	0.0E+00 AI198025.1	0 0E+00 4 1498025 1	00 BF357123.1	11435630 NT	755649.1	00 AW178142.1	3E674544.1	0.0E+00 7662039 NT		0.0E+00 AW575598.1	101255.1	3293	0.0E+00 X15377.1					П
Most Similar (Top) Hit BLAST E Value	0.0E+	+30.0		0.0E+(	0.0E+	0.0E+	0.0E+00	0.0E+00 L35930.1	0.0E+00	0.0E+00	0.0E+00	0.05	0.0E+00	0.0E+00	0.0E+00 D55649.1	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 H01255.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	4.53	4.05	4.05	0.56	8.33	3.66	0.97	1.29	1.29	1.29	0.65	0.85	-	1.77	0.79	+	0.74	0.88	8.48	3.68	5.02	1,16	8.09	0.72	1.23	3.93	3.93	0.78
ORF SEQ ID NO:		32623	32624	32642	32659	32664		32683	32691		32707	32708	32710	32720	32729	32751	32768	32774		32795	32798	32809	32814	32816	32817	32823	32824	32830
Exon SEQ ID NO:	19382			19401	19418	19422	19437	19441			19461	19481	19464	19472	19482	19498	19518	19523	19537	19546	19549	19558	19562	19564	19565	19571	19571	19575
Probe SEQ ID NO:	6311	6312	6312	6331	6349	ශිහි	6369	6373	6382	6382	6393	6393	8398	6404	6414	6432	6453	6458	6472	6481	6484	6493	6498	6500	6501	6507	6507	6511

Page 520 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO: 06514 6514 6514 6514 6514 6519 6556 6650 6660 6600 6600 6600 6600 6600 6600 660	Exan NC: I 19576 19578 19578 19684 19684 19684 1977 19729 19729 19734 19734	ORF SEQ ID NO: 32834 32834 32844 32844 32844 32873 32873 32873 32873 32873 32873 32873 32862 32864 32864 32864 32864 33806 33806 33806 33806	Signal Si	Most Similar (Top) Hit BLAST E Value Value 0.0E+00 0.0	st Similar  ASTE  No.  ASTE  No.  ASTE  No.  AUSTE  0.0E+00 AW748596.1 ES  0.0E+00 AW748596.1 ES  0.0E+00 AW748596.1 ES  0.0E+00 AW748596.1 ES  0.0E+00 AW748596.1 ES  0.0E+00 BE780453.1 ES  0.0E+00 BE780453.1 ES  0.0E+00 BE283153.1 ES  0.0E+00 BE283153.1 ES  0.0E+00 BE887657.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES  0.0E+00 AW406348.1 ES	Top Hit Database Source EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN EST HUMAN	Top Hit Descriptor  MR0-BT0264-221199-002-f11 BT0264 Home saplens cDNA Home saplens Achaete-Scute homedgue 2 (ASCL2) gene, complete cds Home saplens Achaete-Scute homedgue 2 (ASCL2) gene, complete cds AU119246 HEMBA1 Home saplens cDNA clone HEMBA1006360 5' AU119246 HEMBA1 Home saplens cDNA clone HEMBA1006360 5' AU119246 HEMBA1 Home saplens cDNA clone HEMBA1006360 5' B01468712F1 NIH_MGC_67 Home saplens cDNA clone IMAGE:2987803 5' B01105344F1 NIH_MGC_15 Home saplens cDNA clone IMAGE:2987803 5' B01105344F1 NIH_MGC_15 Home saplens cDNA clone IMAGE:2987803 5' B01105344F1 NIH_MGC_67 Home saplens cDNA clone IMAGE:387803 5' B01105344F1 NIH_MGC_67 Home saplens cDNA clone IMAGE:3897803 5' B01105346F1 NIH_MGC_67 Home saplens cDNA clone IMAGE:3897803 5' B011681150F1 NIH_MGC_9 Home saplens cDNA clone IMAGE:3897803 5' B01681150F1 NIH_MGC_9 Home saplens cDNA clone IMAGE:38951301 5' B01081150F1 NIH_MGC_9 Home saplens cDNA clone IMAGE:3951301 5' B01081150F1 NIH_MGC_9 Home saplens cDNA clone IMAGE:2784159 5' similar to saplens therifor fetal brain 00004 Home saplens cDNA clone IMAGE:2784159 5' similar to TR.045300 O15390 O174-13 ITR:043206:
6688	1 1			0.0E+00	0.0E+00 AW163640.1 0.0E+00 W37163.1	EST_HUMAN EST_HUMAN	aus6008.vf Schneder fetal brain 00004 Homo saplens cDNA clone IMAGE:2784159 5' similar to TR:Or5390 O15390 G124. [3] TR:O43840 TR:O43206; ab20e06.rf Soares_fetal_lung_NbHL19W Homo saplens cDNA clone IMAGE:302626 5' similar to SW:ZN45_HUMAN Q02386 ZINC FINGER PROTEIN 45;
6688 6706 6713	) ] ] ]			0.0E+00 0.0E+00	0.0E+00 W37163.1 0.0E+00 BE794853.1 0.0E+00 BE799873.1	EST_HUMAN EST_HUMAN EST_HUMAN	2b20e08.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:302626 5' similar to SW:ZN45_HUMAN Q02386 ZINC FINGER PROTEIN 45; 601589371F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943504 5' 601587561F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3941847 5' CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE IN CONOCE ARRORD 20 AND CONOCE ARRORD 20
6714 6714 6718 6727	19770 19770 19774 19774	33049 33050 33053 33054 33062	3.07 3.07 7.15 7.15 5.42		0.0E+00 BE767955.1 0.0E+00 BE767955.1 0.0E+00 BE89813.1 0.0E+00 BE89813.1 0.0E+00 [24493.1	EST_HUMAN EST_HUMAN EST_HUMAN EST_HUMAN	CV71-GN0055-140800-518-h02 GN0055 Homo sapiens cDNA  CV71-GN0065-140800-318-h02 GN0065 Homo sapiens cDNA  601512058F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913311 5'  601512058F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:3913311 5'  Human antigen CD27 gene, exons 1-2

WO 01/57276 PCT/US01/00668

Page 521 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

_		_		_		_		_		$\overline{}$	$\overline{}$		_	_	_		-			_	_	_	1.0	_	_	_			_		
	Top Hit Descriptor	Homo sepiens chromosome 21 segment HS21C004	Homo sapiens chromosome 21 segment HS21C004	Homo saplens zona pellucida glycoprotein 3A (sperm receptor) (ZP3A), mRNA	tts1f11x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2242413 3' similar to SW:WNT3_MOUSE P17553 WNT-3 PROTO-ONCOGENE PROTEIN PRECURSOR.;	Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds	UI-HF-BN0-ama-c-01-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3081217 5	zw52c03.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773668 5'	601885317F1 NIH_MGC_57 Homo saplens cDNA clone IMAGE:4103693 51	QV3-BN0047-300800-278-c06 BN0047 Homo sapiens cDNA	Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA	Homo sapiens solute carrier family 1 (high effinity aspartate/glutamate transporter), member 8 (SLC1A6), mRNA	AU125928 NT2RM4 Homo sapiens cDNA clone NT2RM4002430 5'	PM2-NN0174-260700-001-h10 NN0174 Homo sapiens cDNA	PM2-NN0174-260700-001-h10 NN0174 Homo sapiens cDNA	CM0-HT0143-270999-062-d08 HT0143 Homo sapiens cDNA	RC0-BN0121-280300-032-e04 BN0121 Homo saplens cDNA	RC0-BN0121-280300-032-604 BN0121 Homo saplens cDNA	PM3-HT0520-230200-002-c08 HT0520 Homo sapiens cDNA	IL5-GN0032-180800-145-d07 GN0032 Homo sapiens cDNA	zp88e03.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA done IMAGE:627292 5'	Human salivary peroxidase mRNA, complete cds	7849b07,x1 NC_CGAP_GC8 Homo septens cDNA done IMAGE:3222037 3' similar to TR:Q9Z285 Q9Z285 TECTIN .	LATING,     LATING AND FOLLOWING AND ADDRESS AND ADD	11.3.5.1 0024-230 / 99-001-B01 S 1 0024 Homo sapiens CUNA	L3-S10024-230799-001-B01 ST0024 Homo sapiens cDNA	Homo sapiens CD6 antigen (CD6), mRNA	DKFZp434D2021_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D2021 5'	H.sapiens immunoglobulin heavy chain gene, variable region	oo10d01.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sepiens cDNA clone IMAGE:1565761 3' similar to TR:Q26623 Q26623 TEKTIN C1.;	601567370F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE;3842080 5'
	Top Hit Database Source	NT	LN	NT	EST_HUMAN	FN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	FN	Ł	EST_HUMAN	EST_HUMAN	EST_HUMAN	<b>EST_HUMAN</b>	<b>EST_HUMAN</b>	EST_HUMAN	EST_HUMAN	<b>EST_HUMAN</b>	EST_HUMAN	LN		ואואסור וכט	EST HUMAN	EST_HUMAN	NT	<b>EST_HUMAN</b>	NT	EST_HUMAN	EST_HUMAN
	Top Hit Acession No.	0.0E+00 AL163204.2	0.0E+00 AL163204.2	E865009	0.0E+00 AI638412.1	L32832.1	0.0E+00 AW 505430.1	0.0E+00 AA434584.1	0.0E+00 BF217200.1	0.0E+00 BE925875.1	11426758 NT	11426758 NT	0.0E+00 AU125928.1	0.0E+00 BE701434.1	0.0E+00 BE701434.1	0.0E+00 BE142363.1	BE006012.1	0.0E+00 BE006012.1	0.0E+00 BE169131.1	0.0E+00 BF085667.1	0.0E+00 AA190755.1	J39573.1	7 2007	0.0E+00 BE0/ 190/.1	0.0E+00(A(940621.1	0.0E+00 AI940621.1	11435626 NT	0.0E+00 AL042443.1	X56163.1	0.0E+00 AI168270.1	0.0E+00 BE734087.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	700	0.05+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00 X56163.1	0.0E+00	0.0E+00
	Expression Signal	2	2	3.67	3.87	1.41	0.79	3.98	1.13	1.68	0.75	0.75	2.04	0.64	0.64	1.46	1.01	1.01	7.7	3,49	3.27	1.04		0.7	6.96	96.9	1.98	1.01	47.69	0.84	0.92
	ORF SEQ ID NO:	33066	29068	33074	33076			33091		33113	33149	33150	ļ		33174	33199	33222		33250	33252	33490	33504					2888	33439	33440	33443	
	Exon SEQ ID NO:	19788	19788	19794	19796	19798	19809	19811	19826	19830	19862	}	1		19882	19904	19926	19926	19953	19955	20167	20179	l	_			20207	20124	20125	20128	Ш
	Probe SEQ ID NO:	6732	6732	6738	6741	6743	6755	6757	6771	6775	8089	8089	6826	6828	6828	6851	6873	6873	6901	න <u>ෙ</u>	. 6943	6954	0.00	0080	6970	6970	6984	8669	6669	7002	7007

Page 522 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

	_	_							_														_						
Top Hit Descriptor	601339977F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3682267 5	601443667F1 NIH MGC 65 Homo sablens cDNA clone IMAGE:3847697 5	601443667F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847697 5'	7649f03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231581 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95.;	7b49f03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231581 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95.:	CM1-HT0877-060900-397-c11 HT0877 Homo sapiens cDNA	233493.r1 Soares NhHMPu S1 Homo saciens cDNA clone IMAGE 665332 5	Homo sapiens catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein) (CTNND2), mRNA	Homo sapiens sodium channel, nonvoltage-dated 1, beta (Liddle syndrome) (SCNN/B) mRNA	601150662F1 NIH MGC 19 Homo saplens cDNA clone IMAGE:3503391 5	601150662F1 NIH MGC 19 Homo sabiens cDNA clone IMAGE:3503391 5:	602185852F1 NIH MGC 45 Homo saplens cDNA clone IMAGE-4310076 5'	Homo saplens Bloom syndrome (BLM) mRNA	Human MYCL2 gene, complete cds	Homo sapiens cadherin 20 (CDH20) mRNA, complete cds	Homo saplens cadherin 20 (CDH20) mRNA, complete cds	Human neurofibromatosis type 1 gene, exon x6	Homo sapiens melanoma antigen, family B, 2 (MAGEB2), mRNA	tg53c06.x1 Sogres_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:2112490 3' similar to SW:OXYB_HUMAN P22069 OXYSTEROL-BINDING PROTEIN	1953c06.x1 Soares_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:2112490 3' similar to SW:OXYB HUMAN P22059 OXYSTEROL-BINDING PROTEIN	601115515F1 NIH MGC 16 Homo sapiens cDNA clone IMAGF:3356330 5'	AU118478 HEMBA1 Homo septiens cDNA clone HEMBA1003679 6"	601148954F1 NIH MGC 19 Homo saplens cDNA clone IMAGE:3501829 51	H.saplens mRNA for latent transforming growth factor-beta binding protein (LTBP-2)	H.saplens mRNA for latent transforming growth factor-beta binding protein (LTBP-2)	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds	Homo saplens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds	Homo sapiens NALP1 mRNA, complete cds	601819722F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4051709 5'
Top Hit Database Source	EST HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN	EST HUMAN	EST HUMAN	EST HUMAN	FN	LN-	EST HUMAN	EST HUMAN	EST HUMAN	NT	L	LN	N-	LZ	LN LN	EST_HUMAN	EST HUMAN	EST HUMAN	EST HUMAN	EST_HUMAN	LN LN	Z	NT	TN		EST_HUMAN
Top Hit Acession No.	0.0E+00 BE566381.1	BE867889.1	00 BE867889.1	00 BE550162.1	0.0E+00 BE550162.1			34810	11431474 NT	0.0E+00 BE313075.1	0.0E+00 BE313075.1	3F569905.1	0.0E+00 4557364 NT	J03069.1	0.0E+00 AF217289.1	AF217289.1	M38113.1	11420775 NT	0.0E+00 AI419969.1	0.0E+00 AI418969.1	0.0E+00 BE256708.1	NU118478.1	0.0E+00 BE262941.1	237976.1	237976.1			0.0E+00 AF310105.1	3F130916.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00 M38113.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00 Z37976.1	0.0E+00 Z37976.1	0.0E+00/	0.0E+00	0.0E+00/	0.0E+00
Expression Signal	1.17	12.91	12.91	1.94	1.94	2.29	1.41	11.47	0.91	0.76	0.76	3.08	0.61	2.02	3.33	3.33	1.77	3.02	0.57	0.57	99.0	1.21	5.02	2.25	2.25	3.32	3.32	1.33	0.59
ORF SEQ ID NO:		31259		33376	33377	33406	33413		33326	33329	33330	33342	33350		33419	33420	33421	31266	31267	31268	31272	31202	31206	31207	31208	31209	31210	31217	31219
Exon SEQ ID NO:			18372	20070	20070	20096		20022	20024	20026	20026	20040	20048	20056	20108	20108	20109	18378	18379	18379	18384	18404	18407	18408	18408	18409	18409	18416	18418
Probe SEQ ID NO:	7030	7040	7040	7048	7048	7074	7081	7088	2090	7092	7092	7106	7114	7122	7132	7132	7133	7146	7147	7147	7162	7173	7176	7177	7177	7178	7178	7185	7187

Page 523 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 524 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exen SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
7447	20413	33766	0.65		0.0E+00 AF227744.1	TN	Homo sapiens voltage-dependent calcium channel alpha 1G subunit isoform ae (CACNA1G) mRNA, complete cds
7469	L	33791	36.24		0.0E+00 A1128344.1	EST HUMAN	qc67a07.xt Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1714644 3' similar to SW:ARSD_HUMAN P51689 ARYLSULFATASE D PRECURSOR ;contains element HGR repetitive element ;
7469					0.0E÷00 AI128344.1	EST_HUMAN	qc87e07.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1714644 3' similar to SW:ARSD_HUMAN P51689 ARYLSULFATASE D PRECURSOR ;contains element HGR repetitive element ;
7472		33795			0.0E+00 AF227135.1	ΤN	Homo sapiens candidate taste receptor T2R9 gene, complete cds
7472	,	33796			AF2271	NT	Homo sapiens candidate taste receptor T2R9 gene, complete cds
7475	20441	33799	5.42	0.00+00		TN	Homo sapiens myosin, heavy polypeptide 8, skeletal muscle, perinatal (MYH8), mRNA
7475	20441	33800			0.0E+00 11426392 NT	TN	Homo sapiens myosln, heavy polypeptide 8, skeletal musole, perinatal (MYH8), mRNA
7478	20444		13.74		BF337375.1	EST_HUMAN	602035089F1 NCI_CGAP_Bm64 Homo saplens cDNA clone IMAGE:4182839 5'
7480	20446	33802	2.75		0.0E+00 AA128453.1	EST_HUMAN	zn60f09.r1 Stratagene muscle 937209 Homo sapiens oDNA clone IMAGE:562601 5' similar to TR:C806562 G806562 NEBULIN.;
7485	20450	33808				EST_HUMAN	DKFZp434B0226_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B0226 5'
7485	20450	33809			0.0E+00 AL079497.1	EST_HUMAN	DKFZp434B0226_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B0226 5'
7496	20461	33821	75.0		0.0E+00 AJ270996.1	NT	Homo sapiens partial mRNA for LTRPC5 protein (LTRPC5 gene)
7530	20493	33855	1.12		0,0E+00 BE295499.1	EST_HUMAN	601174576F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529794 5'
7532	20495	33856			11427965 NT	ΤN	Homo sapiens hypothetical protein (FLJ20261), mRNA
7535	Ι.		1.46		0.0E+00 AU118607.1	EST_HUMAN	AU118607 HEMBA1 Homo sapiens cDNA clone HEMBA1003969 5'
7536	20499	33859			0.0E+00 AF005213.1	L	Homo sapiens ankyrin 1 (ANK1) mRNA, complete cds
7536	l				0.0E+00 AF005213.1	NT	Homo sapiens ankyrin 1 (ANK1) mRNA, complete cds
7547	20510				AF245505.1	NT	Homo sapiens adlican mRNA, complete cds
7555					0.0E+00 X70172.1	NT	H.sapiens DNA for ZNGP2 pseudogene, exan 4
7557	20520	33875			0.0E+00 U45448.1	TN	Human P2x1 receptor mRNA, complete cds
7557	L				U45448.1	LN	Human P2x1 receptor mRNA, complete cds
7570			0.81		0.0E+00 AW956503.1	EST_HUMAN	EST368573 MAGE resequences, MAGD Homo saplens cDNA
7572	20535				0.0E+00 AW950516.1	EST_HUMAN	EST362586 MAGE resequences, MAGA Homo saplens cDNA
7599	]				0.0E+00 AF001543.1	EST_HUMAN	AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo saplens cDNA clone kappa_200
7599	ļ	L			0.0E+00 AF001543.1	EST_HUMAN	AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo saplens cDNA clone kappa_200
7599	1			L	0.0E+00 AF001543.1	EST_HUMAN	AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200
7623	j				0.0E+00 M90354.1	NT	Human BTF3 protein homologue gene, complete cds
7624	20584	33947	0.72		BE408293.1	EST_HUMAN	601302679F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3637434 5

Page 525 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		_											_	_					_							
Top Hit Descriptor	UI-HF-BK0-aas-g-07-0-UI.r1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3054924 5'	ym88h10.r1 Soares adult brain N2b4HB557 Homo sapiens cDNA clone IMAGE:166051 5	xb39a05.y1 NCI_CGAP_Lu31 Homo sapiens cDNA done IMAGE:2578640 5' similar to TR:Q08050 Q08050 HNF3/FH TRANSCRIPTION FACTOR GENESIS ;	AU117553 HEMBA1 Homo sapiens cDNA clone HEMBA1001661 5'	Hamo sapiens glucegon-like peptide 2 receptor (GLP2R), mRNA	zn66f02.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:562203 5' similar to gb:X03740 MYOSIN HEAVY CHAIN , SKELETAL MUSCLE (HUMAN);	MR0-AN0083-270900-004-f07 AN0083 Homo saplens cDNA	QV3-BN0046-220300-129-e04 BN0046 Homo sapiens cDNA	Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete ods	601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5'	601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5'	AU118767 HEMBA1 Homo sapiens cDNA clone HEMBA1004314 5'	ULHF-BR0p-gii-e-10-0-UI.r1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3074778 5	Human mRNA for KIAA0357 gene, partial cds	cn17d05x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn17d05 random	cn17d05.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn17d05 random	zu68b07.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743125 5'	zu68b07,r1 Scares_testis_NHT Homo saplens cDNA clone IMAGE:743125 5'	DKFZp434J087_r1 434 (synonym: htss3) Homo sapiens cDNA clone DKFZp434J087 5'	Homo sapiens dynactin 1 (DCTN1) gene, alternatively spliced products, exons 7 through 32 and complete cds	Homo sapiens dynactin 1 (DCTN1) gene, alternatively spliced products, exons 7 through 32 and complete cds	HSU74315 Human chromosome 14 Homo sapiens cDNA clone 1-4	HTM1-183F1 HTM1 Homo sapiens cDNA	Homo sepiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A), mRNA	602183852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE;4310076 5'	wb17g05.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2305976 3' similar to TR:075363 075363 AlBC1.;
Top Hit Database Source	EST_HUMAN	EST_HUMAN	EST HUMAN	EST HUMAN	Ę	EST_HUMAN	EST HUMAN	EST_HUMAN	F	EST_HUMAN	EST_HUMAN	EST HUMAN	EST_HUMAN	LN L	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	۲	₽	EST HUMAN	EST_HUMAN	LΝ	EST HUMAN	EST_HUMAN
Top Hit Acession No.	00 AW402542.1	00 R87430.1	00 AW239326.1	AU117553.1	0.0E+00 11427135 NT	00 AA211663.1	00 BF229235.1	00 AW996499.1	L32832.1	0.0E+00 BF306996.1	0.0E+00 BF306996.1	0.0E+00 AU118767.1	AW499551.1	0.0E+00 AB002355.1	00 A1752561.1	00 AI752561.1	00 AA399959.1	0.0E+00 AA399959.1	0.0E+00 AL046347.2	00 AF064205.1	0.0E+00 AF064205.1	00 U74315.1	00 BE439545.1	11417342 NT	0.0E+00 BF569905.1	00 AI825504.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 L32832.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	0.5	1.3	2.42	1.21	3.92	1.76	99.0	0.62	0.81	1.17	1.17	1.24	0.49	0.64	4.06	4.06	0.53	0.53	0.53	1.22	1.22	1.06	0.59	1.03	0.5	0.73
ORF SEQ ID NO:	33958		33978		33998	34019	34024			34058	34059	34071	34107	34132	34133	34134	34200	34201	34202	34221	34222	34233	34250	34251	34271	34282
SEO ID NO:	1 1	20613	20614	ı	20636	20655	20860	20867	20670	20694	20694	20703	20735	20758	20759	20759	20823	20823	20824	20840	20840	20848	20862	20863	20881	20891
Probe SEQ ID NO:	7635	7653	7654	7676	7678	7697	7703	7710	7713	7740	7740	7760	7782	6082	7810	7810	7879	7879	7880	7897	7897	7905	7919	7920	7939	7950

Page 526 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	wb17g05.x1 NCI_CGAP_GC6 Homo sepiens cDNA clone IMAGE:2305976 3' similar to TR:O75363 O75363 AIBC1.;	Homo saplens translent receptor potential channel 5 (TRPC5), mRNA	za86e05.s1 Scares_fetal_lung_NbHL19W Homo sapiens cDNA clone IWAGE:299456 3'	601885465F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103729 5'	602185808F1 NIH_MGC_45 Homo saplens cDNA clone IMAGE:4310256 5'	AU129622 NT2RP2 Hamo sapiens aDNA done NT2RP2005913 6'	cr42e09.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_cr42e09 3'	cr42e09.x1 Jia bone marrow strama Homo saplens cDNA clone HBMSC_cr42e09 3'	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA	AV758467 BM Homo sapiens oDNA clone BMFBGG05 5'	601593156F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3947365 61	601593156F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3947365 5'	Homo saplens atrophin-1 interacting protein 1; activin receptor interacting protein 1 (KIAA0705), mRNA	Homo sapiens atrophin-1 interacting protein 1; activin receptor interacting protein 1 (KIAA0705), mRNA	AU120424 HEMBB1 Homo sapiens cDNA clone HEMBB1000655 5'	AU120424 HEMBB1 Homo sapiens cDNA clone HEMBB1000655 5'	nab22c04.x1 Soares. NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3263214.3' similar to contains element TAR1 repetitive element;	601481713F1 NIH_MGC_68 Homo saplens cDNA clone IMAGE;3884258 5'	601481713F1 NIH_MGC_68 Homo saplens cDNA clone IMAGE:3884258 5'	EST368377 MAGE resequences, MAGD Homo sapiens cDNA	Homo saplens psihHaA pseudogene	Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA	AU117333 HEMBA1 Homo sapiens cDNA clone HEMBA1001175 5'	601504084F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905733 5'	EST380119 MAGE resequences, MAGJ Homo saplens cDNA	HA2043 Human fetal liver cDNA library Homo sapiens cDNA	AU133187 NT2RP4 Homo sapiens cDNA done NT2RP4001507 5'	601885317F1 NIH_MGC_57 Homo saplens cDNA clone IMAGE:4103693 6'	601150347F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503050 5'	zo01c06.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:566410 5'
Top Hit Database Source	EST_HUMAN A		EST_HUMAN   2	EST_HUMAN 6	EST_HUMAN 6			EST_HUMAN o		EST_HUMAN A	Γ	EST_HUMAN 6			EST_HUMAN /	EST HUMAN /		EST_HUMAN 6	Г	EST_HUMAN E	+ LN		EST_HUMAN /		EST_HUMAN F	EST_HUMAN IN	Γ.		П	EST_HUMAN 2
Top Hit Acession No.	0.0E+00 AI825504.1	6912735	1	0.0E+00 BF217905.1	0.0E+00 BF569862.1		0.0E+00 AW069274.1	4W069274.1	4501848 NT	0.0E+00 AV758467.1	3E739870.1	0.0E+00 BE739870.1	6912461 NT	6912461 NT	0.0E+00 AU120424.1	AU120424.1	0.0E+00 BF580267.1		0.0E+00 BE787610.1	AW956307.1	0.0E+00 Y16795.1	11425128 NT	0.0E+00 AU117333.1	0.0E+00 BE613963.1	0.0E+00 AW968044.1	0.0E+00 AI133435.1	0.0E+00 AU133187.1	0.0E+00 BF217200.1	0.0E+00 BE313013.1	0.0E+00 AA149791.1
Most Similar (Top) Hit BLAST E Value	0.0E+00/	0.0E+00	0.0E+00 N76126.	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00/	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0€+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	0.73	3.09	96.0	5.4	0.53	3.8	76.0	76.0	6.56	1.05	5.84	5.84	. 0.88	0.88	3.3	3,3	2.13	1.52	1.52	0.54	0.52	0.49	69'0	0.52	4.38	0.75	0.64	0.55	0.87	1.09
ORF SEQ ID NO:	34283	34292	34296	34300					34341	34348				34353				34393				34466	L		34482	34483				34635
Exen SEQ ID NO:	20891						25693				1		20958	20958	L	L	<u></u>	20897	<u> </u>				L		21083	21084	21156			21225
Probe SEQ ID NO:	7950	7958	7965	7971	7976	7981	8006	8008	8010	8017	8020	8020	8021	8021	8022	8022	8048	8060	8060	8101	8123	8129	8130	8131	8146	8147	8186	8231	8244	8256

WO 01/57276 PCT/US01/00668

Page 527 of 546 Table 4

zt81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 ob34d02.y1 NIH\_MGC\_10 Homo saplens cDNA clone IMAGE:2985123 5' similar to TR:064652 064652 bb34d02.y1 NIH\_MGC\_10 Homo sapiens cDNA clone IMAGE:2985123 5' similar to TR:064652 064652 xa07d12x1 Soares\_NFL\_T\_GBC\_S1 Homo saplens cDNA clone IMAGE:2567639 3' similar to contains Homo sapiens killer cell immunoglobulin-like receptor, two domains, short cytoplasmic tail, 1 (KIR2DS1), u93b08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783799 3' similar to G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT); ze05d01.r1 Soares\_fetal\_heart\_NbHH19W Homo sapiens cDNA clone IMAGE:358081 5' DKFZp761P092\_11 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761P092 8' DKFZp761P092\_11 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761P092 8' UI-HF-BN0-akj-f-01-0-UI.r1 NIH\_MGC\_50 Homo sapiens cDNA clone IMAGE:3077496 5 za36d05.r1 Soares fetal liver spieen 1NFLS Homo sapiens cDNA clone IMAGE.294633 6' ze05d01.r1 Soares\_fetal\_heart\_NbHH19W Homo sapiens cDNA clone IMAGE:358081 TR: 060463 060463 TYPE-2 PHOSPHATIDIC ACID PHOSPHOHYDROLASE. [1] 602069632F1 NCI\_CGAP\_Brn64 Homo sapiens cDNA clone IMAGE:4212727 5 602069632F1 NCI\_CGAP\_Bm64 Homo sapiens cDNA clone IMAGE:4212727 ze33h08.r1 Scares retina N2b4HR Homo sapiens cDNA clone IMAGE:360831 601305658F1 NIH\_MGC\_39 Homo sapiens cDNA clone IMAGE:3639903 5 601285550F1 NIH\_MGC\_44 Homo sapiens cDNA done IMAGE:3607237 5' 602153008F1 NIH\_MGC\_81 Homo sapiens cDNA clone IMAGE:4294128 5' AU134114 OVARC1 Homo sapiens cDNA clone OVARC1001296 5' 601485254F1 NIH\_MGC\_69 Homo sapiens cDNA clone IMAGE:3887773 5' 601285550F1 NIH\_MGC\_44 Homo sapiens cDNA clone IMAGE:3607237 601672310F1 NIH MGC 20 Homo sapiens cDNA clone IMAGE:3955131 Homo sapiens mRNA for KiAA0884 protein, partial cds AU142402 Y79AA1 Homo sapiens cDNA clone Y79AA1000277 5' **Fop Hit Descriptor** MR0-ST0031-061099-003-a11 ST0031 Homo sapiens cDNA Homo sapiens centrosomal protein 2 (CEP2), mRNA Human amyloid-beta protein (APP) gene, exon 11 Human amyloid-beta protein (APP) gene, exon 11 Single Exon Probes Expressed In Bone Marrow element OFR repetitive element; F17K2.26 PROTEIN. F17K2.28 PROTEIN **PRNA** EST HUMAN EST\_HUMAN **EST HUMAN EST HUMAN** EST\_HUMAN EST\_HUMAN EST\_HUMAN EST\_HUMAN EST HUMAN EST\_HUMAN EST\_HUMAN EST\_HUMAN EST\_HUMAN EST HUMAN EST\_HUMAN EST HUMAN HUMAN **EST HUMAN** EST\_HUMAN EST\_HUMAN Top Hit Database Source EST HUMAN EST\_HUMAN 눋 戹 7657276 NT 11421722 Top Hit Acession 0.0E+00 AW674581.1 0.0E+00 AW674581.1 AW387131.1 0.0E+00|AW157233.1 0.0E+00 AW072395.1 0.0E+00 AW 500549.1 0.0E+00 AU142402.1 0.0E+00 BE736046.1 AA397551.1 BE388421.1 0.0E+00 AU134114. 0.0E+00 BF525534.1 0.0E+00 BF525534.1 0.0E+00 AL120124.1 BE877693.1 BE388421 ģ BF026628 W01616.1 M34872.1 W95278.1 M34872. 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 Most Similar (Top) Hit BLASTE Value 17.98 0.83 0.52 0.92 2.28 2.42 0.74 7.99 0.95 10.07 2.42 0.74 2.47 0.92 0.92 1.65 1.24 0.67 9 Expression Signal 34648 34906 34695 34728 34734 34742 34758 34926 34680 34696 34727 34735 34758 34759 34810 34887 34929 34737 34741 34777 34881 ORF SEQ ÖΝΩ 3481 SEQ ID 21237 21313 21326 21367 21442 21473 21509 21268 21283 21313 21330 21330 21349 21353 21399 21465 21347 21367 21491 Probe SEQ ID 8268 8281 8299 8314 8344 8353 8356 8376 8378 8378 8380 8398 8430 8430 8505 8523 8541 8544 8344 8357 8384 8473 8351 8361 8361 8497 ÿ

Page 528 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
8546		34931	1.26	0.0E+00	BE745597.1	EST_HUMAN	601578195F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926998 5'
8546		34932	1.26	0.0E+00	0.0E+00 BE745597.1	EST_HUMAN	601578195F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE;3926998 5'
8559	L			L	AJ271735.1	Ľ	Homo saplens Xq pseudoautosomal region; segment 1/2
8278			0		0.0E+00 D45032.1	R	Human DNA for ceruloplasmin, exon 5
0049	24 587	EBOVE	108	<u> </u>	0.05+00	EST HIMAN	qv95c12x1 NCL_CGAP_UI2 Homo sapiens cDNA clone IMAGE:1989334 3' similar to TR:Q14673 Q14673 KIAAAAAA PROTFIN
	1	3					7d76a04x1 NCI CGAP Lu24 Homo saplens cDNA clone IMAGE:3278862 3' similar to TR:096793 096793
8610	21578	34994	2.6		0.0E+00 BE674157.1	EST_HUMAN	STAUFEN PROTEIN:
							w80b10.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2429275 3' similar to
8612						EST_HUMAN	SW:COGT_HUMAN P50281 MATRIX METALLOPROTEINASE-14 PRECURSOR;
8625	21593	35012				EST_HUMAN	601334790F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688655 5'
8625		35013	1.29		BE5636	EST_HUMAN	601334790F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688655 5
8633		35023			11427235 NT	TN	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA
8633		35024		00+30'0	11427235 NT	LN L	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA
							Zv66f02.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:758619 5' stmilar to
8635	21603	35026	1.35		0.0E+00 AA403192.1	EST_HUMAN	TR:G1304132 G1304132 TPRD.;
							zv66902.r1 Soares_total_feitus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:758619 5' similar to
8635	21603	35027	1.35		0.0E+00 AA403192.1	EST_HUMAN	IK:G1304132 G1304132 IPRD.
8676	21644		3.69		0.0E+00 AA398511.1	EST HUMAN	2173e08.s1 Soares_testis_NHT Homo saplens cDNA clone IMAGE:727958 3' similar to gb:S85655
8685	21653	35076			0.0E+00 BE837593.1	EST_HUMAN	RC2-FN0094-120600-013-h07 FN0094 Homo sapiens cDNA
8686	ı				Ì	EST_HUMAN	QV3-DT0045-221299-046-c07 DT0045 Homo sapiens cDNA
8686			1.25		_	EST_HUMAN	QV3-DT0045-221289-046-c07 DT0045 Homo saplens cDNA
8705						EST_HUMAN	601452412F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856179 5'
8705	21673	35098			0.0E+00 BE612586.1	EST_HUMAN	601452412F1 NIH_MGC_66 Homo saplens cDNA clone IMAGE:3856179 5
8720	L	35115	1.65		0.0E+00 AL163209.2	TN	Homo sapiens chromosome 21 segment HS21C009
8720					AL163209.2	N <sub>T</sub>	Homo sapiens chromosome 21 segment HS21C009
8730	21698	35123	0.7		0.0E+00 AI884477.1	EST HUMAN	wm33a11.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2437724 3' similar to TR:075457 075457 OYTOSOLIC PHOSPHOLIPASE A2-GAMMA.;
	┸			L			ne25d10.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:882259 3' similar to TR:G1136434
8737	21705	35129			0.0E+00 AA502294.1	EST HUMAN	G1136434 KIAA0187 PROTEIN.;
8742	21710		0.57		11416799 NT	Ę	Homo saplens protocadherin beta 3 (PCDHB3), mRNA
8749		35140		0.0E+(	00 A1580780.1	EST_HUMAN	ta04f11.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:2043117 3'
8752	21720		1.97	0.0E+	00 BE890797.1	EST_HUMAN	601431238F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916569 5'

Page 529 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Top Hit Descriptor	2822701.5prime NIH_MGC_7 Homo sepiens cDNA clone IMAGE:2822701 5'	2822701.5prlme NIH_MGC_7 Homo sepiens cDNA clone IMAGE:2822701 5'	Homo sapiens mitogen-activated protein kinase kinase kinase 13 (MAP3K13), mRNA	Homo sapiens mitogen-activated protein kinase kinase kinase 13 (MAP3K13), mRNA	Human zinc finger protein (ZNF165), gene, exons 2 and 3	Human zinc finger protein (ZNF165), gene, exons 2 and 3	Homo sapiens NESP55, GNAS1 antisense (partial) and XLalphas (partial) genes	H.sapiens mRNA for gamma-glutamytransferase	H.saplens mRNA for gamma-glutamyltransferase	H.sapiens mRNA for gamma-glutamyltransferase	Human immunoglobulin-like transcript-3 mRNA, complete cds	Homo sapiens cep250 centrosome associated protein mRNA, complete cds	Homo sapiens cep250 centrosome associated protein mRNA, complete cds	AU131671 NT2RP3 Homo sapiens cDNA clone NT2RP3003016 5'	Homo sapiens immunoglobulin superfamily, member 2 (IGSF2), mRNA	xo46e01.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2707032 3' similar to gb:M14123_cds4 RETROVIRUS-RELATED POL POLYPROTEIN (HUMAN);	601472166F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874912 5'	HUM084C02B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-084C02	1111 001 1111 1200 0000	001235486F1 NIH MGC_44 Home sapiens CLINA cione IMAGE:3608709 5	ANDOMETRIC TO HAM MAC 10 HOME SEPTEMENT COME INVOICE (24002.0)	Homo sapiens leukocyte immunoalobulin-like receptor. subfamily B (with TM and ITIM domains). member 3	(LILRB3), mRNA	UI-H-BI1-adr-e-12-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717687 3'	UI-H-Bi1-adr-e-12-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717687 3'	ws30b10.x1 NCI_CGAP_Kid11 Homo sapiens cDNA done IMAGE:2299579 3' similar to TR:O15044	O15044 KJAA0335.;	CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA	Homo sapiens chromosome 21 segment HS21C101	801150051F1 NIH_MGC_19 Hamo sapiens cDNA clone IMAGE:3502836 5'	602127664F1 NIH_MGC_56 Homo saplens cDNA clone IMAGE:42845425	602127664F1 NIH_MGC_66 Hamo sepiens cDNA clone IMAGE:4284542 5'
Top Hit Database Source	EST_HUMAN	EST_HUMAN	TN	TN	FZ	FN	FN	LN LN	FN	NT	FZ.	Z	, LN	EST_HUMAN	LN	EST HUMAN	EST_HUMAN	INVESTIGATION FOR	בסו שפואואוא	EST HUMAN	EST LIMAN	10 min ( - 10 min )	FN	EST_HUMAN	EST_HUMAN		EST_HUMAN	EST_HUMAN	NT	EST_HUMAN	EST_HUMAN	
Top Hit Acession No.	-00 AW245765.1	+00 AW 245765.1	4758695 NT	4758695 NT	+00 U88084.1	+00 U88084.1	+00 AJ251760.1	+00 X98922.1	+00 X98922.1	+00 X98922.1	+00 U82979.1	+00 AF022855.1	+00 AF022655.1	+00 AU131671.1	11426572 NT	+00 AW513513.1	+00 BE783232.1		١	00 BE3/8495.1	100 AA4 10343.1		11424387 NT				+00 AI640190.1	+00 BF377897.1	+00 AL 163301.2			+00 BF700165.1
Most Similar (Top) Hit BLAST E Value		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	100	0.00	0.0=+00	0.0110		0.0E+00	0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	0.65	99.0	2.62	2.62	0.52	0.52	1.02	3	8	3	1.82	1.18	1.18	0.68	0.81	1.53	0.55	4 6 2 6	70:1	3.89	3.30		1.37	1.38	1.38		0.61	3.23	0.45	2.33	2.98	2.98
ORF SEQ ID NO:			35168	35169		35173	35238	35244	35245	35246	35260	35305	35306	35308	35325			00000	07000	35367	corre		35374	35379	35380			35398	35410	35414	35418	35419
Exon SEQ ID NO:	21745	21745	21746	21748	21750	21750	21818	21823	21823	21823	21838	21879	21879	21882	21897	21901	21903	200	1 2 2	21935	210/3		21950	21955	21955		21960	21979	21988	1 1		21999
Probe SEQ ID NO:	8778	8778	8779	8779	8783	8783	8851	8856	8856	8856	8871	8913	8913	8916	8931	8935	8937	8	0260	8808	09/0		8984	8989	8989		8994	9013	9022	9028	8033	9033

Page 530 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

			_	_			_	_	_	_			_	_		_		_	_			_			_				_			_	
שיים וויסים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים וויסים ביישור אינוים ביישור או ביישור אינוים ביישור אינוים ביישור אינוים ביישור אינוים ביישור אינוים ביישור אינוים ביישור אינוים ביישור אינוים ביישור ב	Top Hit Descriptor	602127664F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284542 5'	tk13h11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2150949 3'	AL449770 Homo sapiens fetal brain (Stavrides GS) Homo sapiens cDNA	or80g02.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:16021943' similar to gb:M38072 60S RIBOSOMAL PROTEIN L7A (HUMAN);	Homo sapiens ankyrin 1, erythrocytic (ANK1), transcript variant 1, mRNA	Homo sapiens ankyrin 1, erythrocytic (ANK1), transcript variant 1, mRNA	Homo saplens ITGB4 gene for Integrin beta 4 subunit, exons 3-41	601156330F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139734 5'	AV718377 FHTB Homo sapiens oDNA clone FHTBAAF11 5'	xw73c07x1 NCI_CGAP_Pan1 Homo septens cDNA clone IMAGE:2833644 3' similar to gb:X53587 INTEGRIN BETA-4 SUBUNIT PRECURSOR (HUMAN):	AU124051 NT2RM2 Homo sapiens cDNA clone NT2RM2001675 5'	AU140704 PLACE4 Homo sapiens cDNA clone PLACE4000089 5'	Homo sapiens mRNA for KIAA0454 protein, partial cds	yg09e09.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31674 5'	yg09e09.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31674 5'	hf48a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2935096 3'	hf48a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2935096 3'	AU128804 NT2RP2 Homo sapiens cDNA clone NT2RP2004245 5'	AV714764 DCB Homo sapiens cDNA clone DCBAUA06 5'	DKFZp434C1814_s1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C1814 3'	DKFZp434C1814_s1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C1814 3'	Homo sapiens killer inhibitory receptor 2-2-1 (KIR221) and killer inhibitory receptor 2-2-2 (KIR222) genes,	partial cds	Homo sapiens mRNA for KIAA1512 protein, partial cds	602138483F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4274708 5'	7k29b03.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3476692 3' similar to TR:036448 036448	S GAG.;	Homo saplens fumor protein p73 (TP73), mRNA	Human Ig rearranged H-chain epsilon-3 pseudogene, constant region	Homo saplens mRNA for KIAA0823 protein, partial cds	Homo sapiens mRNA for KIAA0823 protein, partial cds	AV660739 GLC Homo sapiens cDNA clone GLCGKG12 3'
2011 1100-	Top Hit Database Source	EST HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	F	F	Ę	EST_HUMAN	EST_HUMAN	EST HUMAN	EST HUMAN	EST HUMAN	Z	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	-11	Z	⊢Z.	EST HUMAN		EST_HUMAN	L	LN	TN	TN	EST_HUMAN
1000	Top Hit Acession No.	BF700165.1	AI458722.1	0.0E+00 AL449770.1	0.0E+00 AA962527.1	10947037 NT	TN 10947037	30 Y11107.3	30 BE278917.1	DO AV718377.1				00 AB007923.1	00 R17132.1	30 R17132.1	30 AW592233.1	00 AW592233.1		_	00 AL040428.1	30 AL040428.1	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.0E+00/AF133901.1	AB040945.1	0.0E+00 BF675505.1		00 BF058289.1	11422857 NT	K01241.1	AB020630.1	0.0E+00 AB020630.1	AV680739.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20.00	0.0=+00	0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	2.98	0.63	0.7	12.98	4.79	4.79	1.23	2.41	3.32	3.36	1.56	0.86	0.55	0.61	0.61	5.11	5.11	0.46	0.89	3.01	3.01	10,	1.27	1.89	2.24		0.92	4.84	1.44	4.23	4.23	1.71
	ORF SEQ ID NO:			35465	35472				35510			35530		35620							35690			١	35700							35755	
	Exon SEQ ID NO:	21999		22042	22050		l					1	•	22190			1		1			1		ı	- 1	22275			- 1			22326	1
	Probe SEQ ID NO:	9033	9047	9076	9084	0606	0606	9114	9116	9126	9132	9138	9214	9224	9229	9229	9233	9233	9269	9281	9296	9536	0000	3302	9304	9310		9312	9342	9352	9361	9361	9366

Page 531 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

	Top Hit Descriptor	Homo sapiens polycystin-L (PKDL), mRNA	601588304F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942553 5'	Homo saplens mRNA for KIAA1251 protein, partial cds	Homo sapiens mRNA for KIAA1251 protein, partial cds	yu03h08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:232767 5'	601141119F1 NIH_MGC_9 Homo saplens cDNA clone IMAGE:3140740 5'	601141119F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140740 5'	601452582F1 NIH_MGC_86 Homo sapiens cDNA clone IMAGE:3856100 5'	601452582F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856100 5'	Human polymorphic loci in Xq28	Human mRNA for GABA-A receptor, alpha 1 subunit	AU127096 NT2RP2 Homo sapiens cDNA clone NT2RP2000579 5'	an29e04.x1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1700094:3'	wq34a12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2473150 3' similar to SW:MGB3_HUMAN 015480 MELANOMA-ASSOCIATED ANTIGEN B3;	Homo sapiens protocadherin alpha 8 (PCDHA8), mRNA	EST370381 MAGE resequences, MAGE Homo sapiens cDNA	Human endogenous retrovirus, complete genome	AU142662 Y79AA1 Homo saplens cDNA clone Y79AA1000678 5'	Homo sapiens MAP-kinase activating death domain (MADD), mRNA	601301676F1 NIH_MGC_21 Hamo sapiens cDNA clone IMAGE:3638163 5'	7g97h12.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3314471 3' similar to TR:Q9UH62 Q9UH62 HYPOTHETICAL 42.5 KD PROTEIN. ;	Homo sapiens mRNA for KIAA0578 protein, partial cds	601589294F1 NIH_MGC_7 Homo saplens cDNA clone IMAGE:3943463 5'	AU136229 PLACE1 Homo sapiens cDNA clone PLACE1003804 5'	601510247F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911986 5'	601510247F1 NIH_MGC_71 Homo saplens cDNA clone IMAGE:3911986 5	Homo saplens mRNA for KIAA0594 protein, partial cds	EST50505 Gall bladder i Homo sapiens cDNA 5' end	EST50505 Gall bladder I Homo saplens cDNA 5' end	ba54d08,y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900367 5' similar to TR:060275 060275   KIAA0522 PROTEIN;
2001 1 1104	Top Hit Database Source	NT	EST_HUMAN	NT	TN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	LN	NT	EST_HUMAN	EST_HUMAN	EST_HUMAN	Z	EST_HUMAN	NT	EST_HUMAN	ĽΝ	EST_HUMAN	EST_HUMAN	Z	EST_HUMAN	EST_HUMAN	<b>EST_HUMAN</b>	EST_HUMAN	L	<b>EST_HUMAN</b>	EST_HUMAN	EST_HUMAN
	Top Hit Acession No.	0.0E+00 7706638 NT	BE793326.1	0.0E+00 AB033077.1	0.0E+00 AB033077.1	0.0E+00 H73937.1	0.0E+00 BE315402.1	0.0E+00 BE315402.1	0.0E+00 BE612721.1	BE612721.1				0.0E+00 Al061395.1	0.0E+00 AI954607.1	9256595 NT	AW9583	9635487 NT	0.0E+00 AU142662.1	11436995 NT	0.0E+00 BE410768.1	00 BF002024.1	30 AB011150.1	0.0E+00 BE794823.1	0.0E+00 AU136229.1	00 BE883843.1	BE883843.1	0.0E+00 AB011166.1	DO AA344601.1	DD AA344601.1	00 AW 673469.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 M89986.1	0.0E+00 X14766.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00				0.0E+00	0.0E+00		0.0E+(		0.0E+(	l	ı		1	0.0E+00	0.0E+00
	Expression Signal	3.07	2.22	0.48	0.46	96.0	4.19	4.19	0.59	0.59	0.52	1.74	0.5	1.29	1.96	4.1	1.18	4.72	1.44	1.46	0.8	1.29	1.25	4.85	1.04	1.36	1.36	0.77	3.53	3.53	1.02
	ORF SEQ ID NO:	35767			35774		35798		35814			35819	35835	35839				35870					١.	35938		35950					
	SEQ ID	22337	22342	22343	22343	22356	22366	22366	22376	22376	22379	22381	22397	22401	22406	22411	ļ	22432	l	L_			L	22491	ı	22502	i .		١	Ĺ	l i
	Probe SEQ ID NO:	9372	9377	9378	9378	9391	9401	9401	9411	9411	9414	9416	9433	9437	9442	9447	9458	9468	9484	9499	9500	9513	9527	9528	9534	9539	9539	9557	9561	9561	9619

Page 532 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

		10	100	1	т-	_	1	1			_	T	_	_	_	1	T	_	$\overline{}$	7	т-	1	_	T-	T
Top Hit Descriptor	ba54d08.y3 NIH_MGC_10 Homo saplens cDNA clone IMAGE:2800367 6' similar to TR:060275 060275 KIAA0522 PROTEIN ;	ba09f05.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823873 6' similar to gb:L35049 Mus musculus Bol-xL mRNA, complete cds (MOUSE);	baosro5.y1 NIH, MGC, 7 Homo sepiens cDNA clone IMAGE:2823873 5' similar to gb:L35049 Mus musculus Bcl-xL mRNA, complete cds (MOUSE);	602023150F1 NCI_CGAP_Brn67 Hamo sapiens cDNA clone IMAGE:4159300 5	QV2-HT0698-250700-282-b08 HT0698 Homo sapiens cDNA	601455116F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3859035 5'	601455116F1 NIH_MGC_66 Hamo sapiens cDNA clone IMAGE:3859035 5'	RC-BT108-040399-032 BT108 Hamo saplens cDNA	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5 (LILRB5), mRNA	Homo sepiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5 (LILRB5), mRNA	DKFZp434L0120_r1 434 (synonym: htes3) Homo saplens cDNA clone DKFZp434L0120 5	ow60h01x1 Soares_NSF_F8_9W_OT_PA_E31 Homo sepiens cDNA clone IMAGE:1651249 3' similar to TR:014677 Q14677 KIAA0171 PROTEIN	601892245F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4138066 5'	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA	qm09a06.x1 NCI_CGAP_Lu5 Homo saplens cDNA clone IMAGE:1881298 3' similar to SW:RL2B_HUMAN P29316 60S RIBOSOMAL PROTEIN L23A.;	qm09a06.x1 NCI_CGAP_Lu6 Homo sapiens qDNA clone IMAGE:1881298 3' similar to SW:RL2B_HUMAN P29316 60S RIBOSOMAL PROTEIN L23A.;	EST366026 MAGE resequences, MAGC Homo sapiens cDNA	Homo sapiens polycystic kidney disease 2-like protein (PKD2L) gene, exon 8	601510882F1 NIH_MGC_71 Homo saplens cDNA clone IMAGE:3912165 51	601510882F1 NIH_MGC_71 Homo sapiens cDNA cione IMAGE:3912165 51	601109942F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350722 5	601466828F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870007 5'	601466828F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870007 5'	au86c04.yJ Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783142 5' similar to gb:M36072 60S RIBOSOMAL PROTEIN L7A (HUMAN);
Top Hit Database Source	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	TN	Ę	EST_HUMAN	EST_HUMAN	EST_HUMAN	Ę	본	EST_HUMAN	EST HUMAN	EST_HUMAN	N	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN
Top Hit Acessian No.	00 AW 673469.1	-00 BE207063.1	-00 BE207063.1	-00 BF348013.1	-00 BE712515.1	-00 BF034377.1		0.0E+00 Al906351.1	5803069 NT	5803069 NT	-00 AL042278.1	-00 A1088043.1	-00 BF309962.1	11560151 NT	11560151 NT	·00 A1290909.1	00 A1290909.1	00 AW953836.1	00 AF153468.1	0.0E+00 BE885128.1	0.0E+00 BE885128.1	0.0E+00 BE255829.1	0.0E+00 BE781382.1	3E781382.1	0.0E+00 AW163779.1
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Expression Signal	1.02	4.71	4.71	1.77	2.9	0.86	0.86	0.53	3.69	3.69	2.54	2.35	0.85	2.64	2.64	20.82	20.82	3.57	3.43	99.0	0.86	22.2	1.35	1.35	30.94
ORF SEQ ID NO:	36012	36044	36045	36275	36107	36213		36221	36223	36224	36149	36183			34519	34522	34523	34524	36129	36133	36134			36232	36234
Exon SEQ ID NO:	22563	22596	22596			22760	22760	22766	22769	22769	22692			21118	21118	21120	21120	21121	22874	22677	22677	22773	22776	22776	22779
Probe SEQ ID NO:	9619	9653	9653	9664	9700	9732	9732	9738	9741	9741	9751	9786	9793	9626	9795	9797	7676	9798	9825	9828	9828	9837	9840	9840	9843

Page 533 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Single Exol Flobes Explessed in Doile Wallow	Top Hit Descriptor	Homo sapiens DNA for amyloid precursor protein, complete cds	601145054F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160477 5'	C06158 Human pancreatic islet Homo sapiens cDNA clone hbc5605	C06158 Human pancreatic islet Homo sapiens cDNA clone hbc5605	601578683F1 NIH_MGC_9 Homo saptens cDNA clone IMAGE:3927548 5'	Homo sapiens solute carrier family 21 (organic anlon transporter), member 9 (SLC21A9), mRNA	Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA	Homo sapiens solute carrier family 21 (organic anion transportar), member 9 (SLC21A9), mRNA	601673425F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3956238 5'	AV701829 ADB Homo sapiens cDNA clone ADBBYH01 5'	Homo sapiens keratin 2e (KRT2E) gene, complete cds	Homo sapiens keratin 2e (KRT2E) gene, complete cds	RC2-BT0642-130300-017-g01 BT0642 Homo sapiens cDNA	IF-BN0-akg-b-12-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076943 5'	UI-HF-BN0-akg-b-12-0-UI.r1 NIH_MGC_50 Homo saplens cDNA clone IMAGE:3078943 5'	Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families	Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsingen gene families	601470824F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874037 5'	601470824F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874037 5'	zd16e11.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:340844 5	zd16e11.r1 Scares_fetal_heart_NbHH19W_Homo sapiens oDNA clone IMAGE:340844 5'	Homo sapiens mRNA for neurexin I-alpha protein, complete cds	am56a11.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1539548 31	UI-HF-BN0-akj-c-07-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077364 5'	Multiple sclerosis associated retrovirus polyprotein (pdl) mRNA, partial cds	AIGF=androgen-induced growth factor AIGF [human, placenta, Genomic/mRNA, 498 nt, segment 5 of 5]	AIGF=androgen-Induced growth factor AIGF [human, placenta, Genomic/mRNA, 498 nt, segment 5 of 5]	601334603F1 NIH_MGC_39 Hamo sapiens cDNA clone IMAGE:3688680 5'	CN2-CT0311-301199-043-h11 CT0311 Homo sapiens cDNA	Homo sapiens multimerin (MMRN), mRNA
אחווי דוטטפא באף	Top Hit Database Source	NT	EST_HUMAN 601	EST_HUMAN CO	EST_HUMAN CO	EST_HUMAN 601					EST_HUMAN AV	NT	NT Hor	EST_HUMAN RC	EST_HUMAN UI-	HUMAN	NT Hor	Ā	EST_HUMAN 601	EST_HUMAN 601	EST_HUMAN  zd1	T_HUMAN		EST_HUMAN am	EST_HUMAN UI-	NT Mu	NT	NT	EST_HUMAN 60	EST_HUMAN CN	
T alfanic	Top Hit Acession No.		1.	0.0E+00 C06158.1		1.1	11437282 NT	11437282 NT	11437282 NT			0.0E+00 AF019084.1	0.0E+00 AF019084.1		0.0E+00 AW 500293.1		0.0E+00 AF029308.1	0.0E+00 AF029308.1		0.0E+00 BE783272.1						0.0E+00 AF009668.1	0.0E+00 S78466.1	0.0E+00 S78466.1	1.	0.0E+00 AW363135.1	11436432 NT
	Most Similar (Top) Hit BLAST E Value	0.0E+00 D87675.1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	0.44	3.12	4.11	4.11	2.92	1.81	1.81	1.81	1.49	0.61	2.59	2.59	1.86	2.65	2.65	1.45	1.45	0.76	0.76	0.52	0.52	1.05	0.56	2.73	1.51	2.37	2.37	3.13	1.42	0.61
	ORF SEQ ID NO:	36242	36257	36293	36294		36307	36308	36309				36336		36392	36393	36399	36400		36402	36413	36414	36427		36432		36512	36513			
	Exon SEQ ID NO:	22790	22803	22838	L		22850	22850			22862	Ι.		22907	22926	22926	1	22935	ļ	L	22946	1_	22959			L	. 23035	23035	L	l	
	Probe SEQ ID NO:	9854	9867	9885	9885	9887	9897	9897	9897	9917	9935	9947	9947	0866	6666	6666	10008	10008	10010	10010	10019	10019	10032	10036	10038	10082	10109	10109	10112	10132	10152

PCT/US01/00668

Page 534 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

-			_			_	_	_	_	_	_		_	_	_	_	_	_		_	_	_	7	_	_	_			_	_		<b>—</b> r	_
Single Exoli Plobes Explessed in Boile Mailow	Top Hit Descriptor	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily Β (with TM and ITIM domains), member 3 (LILRB3), mRNA	bb26c01x1 NIH_MGC_5 Homo sapiens cDNA clone IMAGE:2964000 3'	AU132349 NT2RP3 Homo saplens cDNA clone NT2RP3004260 5'	AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5'	UI-HF-BP0p-air-f-05-0-UI.r1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3072897 5'	601595558F1 NIH_MGC_9 Homo saplens cDINA clone IMAGE:3949383 5	801595558F1 NIH_MGC_9 Homo saplens cDNA clone IMAGE:3949383 5'	Homo sapiens mRNA for KIAA1231 protein, partial cds	Homo sapiens mRNA for KIAA1231 protein, partial cds	Homo sapiens KIAA0345 gene product (KIAA0345), mRNA	DKFZp434L0120_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L0120 5'	DKFZp434B2416_r1 434 (synonym: htes3) Homo saplens cDNA clone DKFZp434B2416 5'	AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5'	Homo saplens protocadherin alpha 12 (PCDH-alpha12) mRNA, complete cds	Homo sapiens leucocyte immunoglobulin-like receptor-1 mRNA, complete cds	Homo sapiens leucocyte immunoglobulin-like receptor-1 mRNA, complete ods	MR4-TN0114-110900-101-e04 TN0114 Homo sapiens cDNA	601155227F1 NIH_MGC_21 Homo saplens cDNA clone IMAGE:3138798 5'	601286351F1 VIIH_MGC_44 Homo sapiens cDNA clone IWAGE:3613045 5'	601286351F1 NIH_MGC_44 Home sapiens cDNA clone IMAGE:3613045 57	x72b01x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2899977 3' similar to gb:X02152_cds1 L-	EST46740 Fetal kidney II Homo saplens cDNA 5' end	Homo sapiens Chedlak-Higashl syndrome 1 (CHS1), mRNA	EST376186 MAGE resequences, MAGH Homo sapiens cDNA	AU143673 Y79AA1 Homo sapiens cDNA clone Y79AA1002307 5	AU143673 Y79AA1 Homo sapiens cDNA clone Y79AA1002307 5'	Homo sapiens killer cell inhibitory receptor KIRCI gene, exons 2, 3, and 4	Homo saplens HEF like Protein (HEFL), mRNA	Homo sapiens HEF like Protein (HEFL), mRNA	AU136637 PLACE1 Homo sapiens cDNA clone PLACE1004737 5'	AU136637 PLACE1 Homo sapiens cDNA clone PLACE1004737 5'	Homo sapiens partial RANBP7 gene for RanBP7/importin7 and partial ZNF143 gene
SAUDI LIONES	Top Hit Database Source	FZ	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST HUMAN	LΝ	FZ	뒫	EST_HUMAN	EST_HUMAN	EST_HUMAN	FN	Ā	ΝΤ	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	NAME IN	EST HUMAN	Ę	EST HUMAN	EST HUMAN	EST_HUMAN	FN	TN	덛	EST_HUMAN	EST_HUMAN	뒫
aibilic	Top Hit Acesslon No.	11424387 NT	0.0E+00 BE206710.1	0.0E+00 AU132349.1	00 AU132349.1	0.0E+00 AW 500936.1	0.0E+00 BE740490.1	0.0E+00 BE740490.1	0.0E+00 AB033057.1	0.0E+00 AB033057.1	7862067 NT	0.0E+00 AL042278.1	00 ALD41084.2	00 AU132349.1	00 AF152308.1	0.0E+00 AF009220.1	0.0E+00 AF009220.1	0.0E+00 BF092898.1	0.0E+00 BE280793.1	0.0E+00 BE388700.1	0.0E+00 BE388700.1	00 0000000	0.0E+00 AA341305.1	11427235 NT	0.0E+00 AW964113.1	0.0E+00 AU143673.1		0.0E+00 AF072408.1	11421001 NT	11421001 NT	AU136637.1	+00 AU136637.1	١
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	00-20-0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	1.7.1	0.82	2.6	2.6	1.82	16.11	16.11	0.45	0.45	1.76	3.6	0.71	2.57	2.44	5.52	5.52	2.5	2.73	1.2	1.2	700	0.75	0.63	0.75	7.08	7.08	13.11	2.8	2.8	3.43	3.43	2.24
-	ORF SEQ ID NO:	36554	36564	36583	36584	36596	36602	36603	36604	36605	36618	36638	36644	36651	36652	36680	36681	36694	36720	36726	36727	007.00	36734	36745		36774			36780	36781			36839
	SEQ ID NO:	23078	23087	23103	23103	23112	23118	23118	23119	23119	23131	23149	23154	23164	23165	23193	23193	23209	23238	23247	23247	200	23257	23266	23286	23299		23302	l	23304	1 1		23354
	Probe SEQ ID NO:	10153	10162	10178	10178	10187	10193	10193	10194	10194	10206	10224	10229	10239	10240	10268	10268	10284	10314	10323	10323	0000	10333	10342	10363	10376	10376	10379	10382	10382	10416	10416	10432

Page 535 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Π		T	Г	Т	Т	Т	Т	Т	Т	Т	Τ	Т	Т	Т	Т	Г	Т	T	Т	Т	Т	Т	Г	Г	F	Г			T	T	Т	1	Г	7
	Top Hit Descriptor	Homo saplens partial RANBP7 gene for RanBP7/importin7 and partial ZNF143 gene	AV695712 GKC Homo sapiens cDNA clone GKCDXA07 5'	AV895712 GKC Homo sapiens cDNA clone GKCDXA07 5'	Homo sapiens killer cell inhibitory receptor KIRCI gene, exons 2, 3, and 4	zp97h11.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628197 5'	231f01.r1 Scares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503545 5	2/3/1701.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503545 5'	Homo sapiens KIF4 (KIF4) mRNA, complete cds	601491565F1 NIH_MGC_89 Home saplens cDNA clone IMAGE:3893657 5'	601570712F1 NIH_MGC_21 Home sapiens cDNA clone IMAGE:3845403 5'	601570712F1 NIH_MGC_21 Homo saplens cDNA clone IMAGE:3845403 5	AU127403 NT2RP2 Homo saplens cDNA clone NT2RP2001212 5'	601645134F1 NIH_MGC_56 Home sapiens cDNA clone IMAGE:3930177 5	601645134F1 NIH_MGC_56 Home sapiens cDNA clone IMAGE:3930177 5	601432317F1 NIH_MGC_72 Homo saplens cDNA clone IMAGE:3917453 5'	EST182353 Jurkat T-cells VI Homo sapiens cDNA 5' end	Homo sapiens neurexin III (NRXN3) mRNA	601432228F1 NIH_MGC_72 Homo seplens cDNA clone IMAGE:3917598 5'	Homo saplens hypothetical C2H2 zlnc finger protein FLJ22504 (FLJ22504), mRNA	Homo sapiens mRNA for actin binding protein ABP620, complete cds	601105459F1 NIH_MGC_15 Homo saplens cDNA clone IMAGE:2987918 5'	601105459F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987918 5	Homo sapiens mRNA for estrogen receptor beta, complete cds	Homo saplens mRNA for estrogen receptor beta, complete cds	2/19606.s1 Soares_fetal_liver_splean_1NFLS_S1 Homo sapiens cDNA clone IMAGE:450707 3' similar to	gb:M14123_cds1 RETROVIRUS-RELATED GAG POLYPROTEIN (HUMAN);	Human beta 1,4-galactosyl-transferase mRNA, complete cds	802037045E1 NCI_CGAP_Bm64 Homo saplens cDNA clone IMAGE:4184939 5	602037045F1 NCI_CGAP_Bm64 Homo sapiens cDNA clone IMAGE:4184939 5	601439713F1 NIH_MGC_72 Homo saplens cDNA clone IMAGE:3924578 6'	601439713F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924578 6'	AV716271 DCB Hamo seplens cDNA clone DCBBDC09 5'	AV718271 DCB Homo sapiens cDNA clone DCBBDC09 5'
	Top Hit Database Source	N-I	EST_HUMAN	EST_HUMAN	Ę	EST_HUMAN	EST_HUMAN	EST_HUMAN	E	EST_HUMAN	EST_HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST_HUMAN	IN	EST_HUMAN	NT	LN.	EST_HUMAN	EST_HUMAN	NT	TN		EST_HUMAN	Ι	EST_HUMAN	EST_HUMAN	EST_HUMAN	EST HUMAN	EST_HUMAN	EST_HUMAN
8	Top Hit Acession No.	00 AJ295844.1	0.0E+00 AV695712.1	0.0E+00 AV695712.1	00 AF072408.1	00 AA196387.1	00 AA131248.1	00 AA131248.1	00 AF179308.1	00 BE880658.1	0.0E+00 BE730772.1	00 BE730772.1	0.0E+00 AU127403.1	00 BE958511.1	00 BE958511.1	0.0E+00 BE897487.1		8827	00 BE891113.1	11560151 NT	00 AB029290.1	00 BE304522.1	00 BE304522.1	00 AB006590.1	00 AB006590.1		0.0E+00 AA704457.1	DO M22921.1	3F340331.1	0.0E+00 BF340331.1	DO BE897149.1	DO BE897149.1	00 AV716271.1	00 AV716271.1
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00/	0.0E+00	1	0.0E+00/	0.0E+00.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Expression Signal	2.24	0.75	0.75	0.78	2.64	1.78	1.78	1.79	98'0	11.49	11.49	0.62	0.86	0.86	0.98	0.68	0.56	0.78	1.19	1.39	0.6	9.0	4.13	4.13		1.27	1.19	4.52	4.52	5.24	5.24	0.48	0.48
	ORF SEQ ID NO:			36848	36855		36887		2698									37038	37051	37054	37060				37068		37077	37078	37081					37135
	Exon SEQ ID NO:	23354	23359	23359								]	. 1		23510		ı	23539	23551	23554	23564	23565	23565	23572	23572		23580	23582	23584	23584	23609	23609	23841	23641
	Probe SEQ ID NO:	10432	10437	10437	10443	10445	10470	10470	10517	10561	10573	10573	10578	10588	10588	10605	10616	10817	10629	10632	10642	10643	10643	10650	10650		10658	10680	10662	10662	10687	10687	10719	10719

Page 536 of 546 Table 4 Single Exon Probes Expressed in Bone Магтоw

L			Most Similar		Too Hit	
ORF SEQ Expression ID NO: Signal	Expres Sign	sion	(Top) Hit BLAST E Value	Top Hit Acession No.	Database Source	Top Hit Descriptor
23672 37167		1.13	0.0E+00	AI631818.1	EST_HUMAN	wa36e03.X1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2300188 3' similar to TR:Q61204 Q61204 NOTCH2-LIKE;
		1.13			EST HUMAN	wa36e03.X1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2300188 3' similar to TR:Q81204 Q81204 NOTCH2-LIKE;
		2	L	T03078.1		FB23A4 Fetal brain, Stratagene Homo sapiens cDNA clone FB23A4 3'end
L	L	0.67	0.0E+00	AU122429.1	EST_HUMAN	AU122429 MAMMA1 Homo saplens cDNA clone MAMMA1002368 5
L		0.43	0.0E+00	6005921	TN	Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA
23738 37241		2.63	0.0E+00	BF436218.1	١	nab45e12x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:32552/13
23739		1.3	0.0E+00	AV654765.1	EST_HUMAN	AV654765 GLC Homo sapiens cDNA clone GLCDZC07 3
23757 37257		5.03	0.0E+00	AW517960.1	EST HUMAN	xu74b01.x1 NOI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2807401 3' similar to go:wiseuss miOESiIN (HUMAN);
L		18.38	L	BE549213.1	EST_HUMAN	601078764F1 NIH_MGC_12 Homo saplens cDNA clone IMAGE:3464703 5'
23778 37278	L	0.64		11436005 NT	TN	Homo saplens hypothetical protein DKFZp761P1010 (DKFZp761P1010), mRNA
23803 37307	L	0.44	0.0E+00	X89893.1	NT	H.sapiens mRNA for NK receptor (183 Actl)
	L	4.15	0.0E+00	BE781742.1	EST_HUMAN.	601467419F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870700 5
23823 37334	L	3.07	0.0E+00	BE082720.1	EST_HUMAN	RC2-BT0642-150200-012-d03 BT0642 Homo sapiens cDNA
23823 37335	L	3.07	0.0E+00	BE082720.1	EST_HUMAN	RC2-BT0642-150200-012-d03 BT0642 Homo sapiens cDNA
L		0.56		Y08032.1	N	Human endogenous retrovirus-K, LTR U5 and gag gene
23835 37351	L	0.7		AI656890.1	EST_HUMAN	#54e07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:22446123
37358		1.6		BE743215.1	EST_HUMAN	601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5
23842 37359		1.6		BE743215.1	EST_HUMAN	601573895F1 NIH_MGC_8 Homo saplens cDNA clone IMAGE:3835198 5
23845 37360	L	0.97	L	BE617655.1	EST_HUMAN	601441723T1 NIH_MGC_65 Homo saplens cDNA clone IMAGE:3845956 3
23845 37361	L	0.97		BE617655.1	EST_HUMAN	601441723T1 NIH_MGC_65 Homo saplens cDNA clone IMAGE:3845956 3
23866 37380	Ļ	0.55		H39805.1	EST HUMAN	yp01a10.r1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:188138 57
23880 37393	Ļ	0.48		AW748117.1	EST_HUMAN	QV0-BT0107-230799-007-c06 BT0107 Homo saplens cDNA
23892 37406	_	1.18		D87675.1	LN L	Home sapiens DNA for amyloid precursor protein, complete cds
L	Ļ	0.48		AF081364.1	N	Synthetic construct CD30 ligand-exotoxin A fusion protein (CD30L-ETA fusion) mRNA, partial ods
23914 37430	Ļ	0.46		AW342141.1	<b>EST_HUMAN</b>	EST 00007 Human differential display products Homo saplens cDNA clone UNCDD7
23914 37431	Ļ	0.46	0.0E+00	AW342141.1	EST_HUMAN	EST 00007 Human differential display products Homo sapiens cDNA clone UNCDD7
23965 37489	Ļ	1.72	0.0E+00	AV711075.1	EST_HUMAN	AV711076 Cu Homo sapiens cDNA clone CuAAKG05 5
L	Ļ	1.72	0.0E+00	AV711075.1	EST_HUMAN	AV711075 Cu Homo sapiens cDNA clone CuAAKG05 5'
L	L	3.29		AW813783.1	EST_HUMAN	RC3-ST0197-120200-015-a03 ST0197 Homo saplens cDNA
37496	<u></u>	6.07	0.0E+00	AW963563.1	EST_HUMAN	EST375636 MAGE resequences, MAGH Homo sapiens cDNA
23084 37510	1	- 3		11431124 NT	LN	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA
	از					

Page 537 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

	_					_																	_			
Top Hit Descriptor	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA	wy61709.x1 Sogres_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2663065 3' similar to TR:060566 Q60566 VDX;	TCAAPSD0917 Pediatric acute myelogencus leukemia cell (FAB M1) Baylor-HGSC project≕TCAA Homo sapiens cDNA clone TCAAP0917	wb28a12.X1 NC_CGAP_GC6 Homo saplens cDNA clone IMAGE:2306974 3' similar to contains element MSR1 MSR1 repetitive element;	wb28a12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2306974 3' similar to contains element MSR1 MSR1 repetitive element:	601888704F1 NIH MGC 17 Homo sapiens cDNA clone IMAGE:4122649 5	Homo sapiens NOD2 protein (NOD2), mRNA	Homo sapiens NOD2 protein (NOD2), mRNA	UI-HF-BL0-acm-d-04-0-UI.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3059383 5'	Homo sapiens hypothetical protein FLJ20079 (FLJ20079), mRNA	Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1E (HTR1E) mRNA	Homo sapiens 5-hydroxydryptamlne (serotonin) receptor 1E (HTR1E) mRNA	wu32b06.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:25217153	601505204F2 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3906865 57	601434522F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919636 5'	Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA	Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA	zp95b11.r1 Stratagene muscle 937209 Homo saplens cDNA clone IMAGE:627933 5' similar to gb:X03740 MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN);	nw17c08.s1 NCI_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1240718 3' similar to gb:X57809 IG	LAMBDA CHAIN C REGIONS (HUMAN);	601588829F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943015 5	AV727362 HTC Homo sapiens cDNA clone HTCAQH06 5'	AV727362 HTC Hamo sapiens cDNA clane HTCAQH06 5'	2X78c12.r1 Soares overy tumor NbHOT Homo sapiens cDNA clone IMAGE:809878 5' similar to gb:X72467 IG KAPPA CHAIN PRECURSOR V-II REGION (HLIMAN)	xx04g10 x1 NCI_CGAP_Lym12 Homo saplens cDNA clone IMAGE:285226 3' similar to gb:M60854 40S RIBOSOMAL PROTEIN S16 (HUMAN):	AU135741 PLACE1 Homo sapiens cDNA clane PLACE1002794 5
Top Hit. Database Source	F	EST_HUMAN	EST HUMAN	EST HUMAN	EST HUMAN	EST HUMAN	TN	Ę	EST_HUMAN		N	N <sub>T</sub>	EST_HUMAN	Г	Г		ΡΑ	EST_HUMAN					EST_HUMAN	EST HUMAN		$\sqcap$
Top Hit Acession No.	11431124 NT	00 AW057621.1	00 BE243270.1	00 AI662239.1	00 A1652239.1		45911	11545911 NT	00 AW 404795.1	11424829 NT	4504536 NT	4504536 NT	00 Al991827.1	DO BE882109.1	DO BE891630.1	8923939 NT	8923939 NT	0.0E+00 AA195905.1					0.0E+00 AV727362.1	-		$\prod$
Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00/	0.0E+00 E	0.0E+00]/	0.0E+00 /	0.0E+00/	0.0E+00	0.0E+00/
Expression Signal	1.81	1.76	1.96	2.54	2.54	2.13	3.83	3.83	5.31	2.69	7.34	7.34	2.71	1.64	21.37	4.59	4.59	5.57		100.2	4.22	15.77	15.77	14.2	24.26	1.88
ORF SEQ ID NO:	37511	37515	37520	37521	37522	37525	37531	37532	37541	37544	37545	37546	37547	37551	37553	37554	37555	32151		37586	37587	37595	37596	37613	37618	37623
Exon SEQ ID NO:	23984	23988	23993	23994	23994	23998	24005	24005	24018	24021	24022	24022	24023	24026	24029	24031	24031	18962		24063	24064	24073	24073	24086	24089	24094
Probe SEQ ID NO:	11019	11023	11029	11030	11030	11034	11041	11041	11055	11058	11059	11059	11060	11063	11066	11068	11068	11083		11103	11104	11113	11113	11126	11129	11134

Page 538 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

					,		
Probe SEQ ID NO:	Exan SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
11139	24099	37626	3.36		0.0E+00 AW59333.1	EST_HUMAN	hg13d02.x1 Soares_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element;
11139	24099	37627	3.36		0.0E+00 AW 593333.1	EST_HUMAN	hg13d02.x1 Soares_NFL_T_GBC_S1 Homo saplens cDNA clone IMAGE:2946475 3' similar to contains element MSR1 repetitive element;
11139	24099	37628	3.36		0.0E+00 AW59333.1	EST_HUMAN	hg13d02.X1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element;
11141	24101	37629	1.68			. FN	H.sapiens mRNA for H1 histamine receptor
11142			,		0.0E+00 F13069.1	EST_HUMAN	HSC3IC031 normalized infant brain cDNA Homo sapiens cDNA clone c-3lc03
11159	24117	37643	2.4			TN	Homo saplens (mmunoglobulin kappa-chain A14 V-region precursor (IGKV) gene, partial cds
11159	24117	37644	2.4		0.0E+00 M27751.1	TN	Homo saplens immunoglobulin kappa-chain A14 V-region precursor (IGKV) gene, partial cds
11167	24125	37654	40.1	0.0E+00	AW338094.1	EST_HUMAN	xw66f01.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2832985 3' similar to gb:X17115 IG MU_CHAIN C REGION (HUMAN);
11168	24126	37655	3.64	L	0.0E+00 AW451230.1	EST_HUMAN	UI-H-BI3-allh-a-01-0-UI.s1 NCI_CGAP_Sub5 Homo saplens cDNA clone IMAGE:2736849 3'
11168	24126	37656	3.54		0.0E+00 AW451230.1	EST_HUMAN	UI-H-BI3-alh-a-01-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736649 3/
11170	13316		8.04	0.0E+00	4506632	뉟	Homo sapiens ribosomal protein L31 (RPL31) mRNA
11184	24140	37674	2.07		0.0E+00 BE298449.1	EST_HUMAN	601119248F1 NIH_MGC_17 Homo saplens cDNA clone IMAGE:3029219 6'
.11196		37682	2.13			NT	Homo sapiens mRNA for KIAA0545 protein, partial cds
11199	24154	37686	1.69			NT	Homo sapiens of cardiac alpha-myosin heavy chain gene
11206	24160	37690	1.68			EST_HUMAN	601193824F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3538012 5'
11214	24187	37696	1.62		3E792155.1	EST_HUMAN	601582046F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936539 5'
11215	24168		70.33		3F684061.1	EST_HUMAN	602141405F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302432 5'
11217	24170	37698	7.66		AU118386.1	EST_HUMAN	AU118386 HEMBA1 Homo sapiens cDNA clone HEMBA1003486 5'
11218	24171		2.51		0.0E+00/AW236269.1	EST HUMAN	xn72b01.x1 NCi_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2699977 3' similar to gb:X02152_cds1 L-LACTATE DEHYDROGENASE M CHAIN (HUMAN);
11223	1	37702	4.92			EST_HUMAN	of43c03.x1 Soares_testts_NHT Homo sapiens cDNA clone IMAGE:1752772.3'
11223	24176		4.92		0.0E+00 AI149809.1	EST_HUMAN	qf43c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:17527723'
11224	24177	37704			_	EST_HUMAN	QV4-ST0234-121199-032-b06 ST0234 Homo saplens cDNA
11234	24187		1.54		0.0E+00 AU116908.1	EST_HUMAN	AU116908 HEMBA1 Homo sapiens cDNA clone HEMBA1000255 5'
11238	24191	37710	9.23		4726	N	Homo sapiens Insulin receptor (INSR), mRNA
11244	24197	37716	145.89			EST_HUMAN	QV0-UM0093-170400-191-d06 UM0093 Homo saplens cDNA
11244		37717	145.89		0.0E+00 AW804516.1	EST_HUMAN	QV0-UM0093-170400-191-d06 UM0093 Homo saplens cDNA
11245			ı			EST_HUMAN	602037014F1 NCI_CGAP_Bm64 Homo saplens cDNA clone IMAGE:4184979 5'
11247	24200		4		0.0E+00/BE261209.1	EST_HUMAN	601148357F1 NIH_MGC_19 Homo saplens cDNA clone IMAGE;3163310 5
11251	24204	37726	1.74		0.0E+00 AB029040.1	NT	Homo sapiens mRNA for KIAA117 protein, partial cds

Page 539 of 546 Table 4 Single Exon Probes Expressed in Bone Магтоw

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
11256	24208	37731	6.12			NT	Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 15-17
11257	24209	37732	1.72			IN	Homo sapiens of cardiac alpha-myosin heavy chain gene
11260	24212		9		0.0E+00 BE773036.1	EST_HUMAN	RC1-FT0134-170700-012-f07 FT0134 Homo saplens cDNA
11260	24212				0.0E+00 BE773036.1	EST_HUMAN	RC1-FT0134-170700-012-107 FT0134 Homo sapiens cDNA
11283	24233	37759	89.91	0.05+00	0.0E+00 AA740782.1	EST HUMAN	ob32e07.s1 NCLCGAP_Kid5 Homo sapiens cDNA clone IMAGE:1325412 3' similar to contains element MSR1 repetitive element ;
11285	24235			0.0E+00	0.0E+00 AW 466922.1	EST HUMAN	ha04h04.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2872759 3'
11291	24241		2.85	ŀ	0.0E+00 AF252303.1	NT	Homo sapiens signaling lymphocytic activation molecule (SLAM) gene, exon 2
11304	24254		1.84		0.0E+00 BE266478.1	EST_HUMAN	601192748F1 NIH_MGC_7 Homo saplens cDNA clone IMAGE:3536867 5'
11304	24254		1.84		0.0E+00 BE266478.1	EST_HUMAN	601192748F1 NIH_MGC_7 Homo saplens cDNA clone IMAGE:3536867 5'
11307	24257	37783	9.7			EST_HUMAN	C05089 Human heart cDNA (YNakamura) Homo saplens cDNA clone 3NHC4817
11313	24263	37789		0.0E+00		EST_HUMAN	oa56h01,r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1309009 5'
11313	24263	37790	1.91		0.0E+00 AA746375.1	EST_HUMAN	oa56h01.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone (MAGE:1309009 5'
11321	24271				0.0E+00 BF353625.1	EST_HUMAN	QV2-HT0698-020800-295-d07 HT0698 Homo sapiens cDNA
11322	24272				0.0E+00 AL157608.1	EST_HUMAN	DKFZp761J2116_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761J2116 5'
11333	24283				0.0E+00 AU116988.1	EST_HUMAN	AU116988 HEMBA1 Homo sapiens cDNA clone HEMBA1000424 5'
11347	24297					EST_HUMAN	AU132437 NT2RP3 Hamo sapiens cDNA clane NT2RP3004422 5'
11367	18866		2.84			NT	Homo sapiens mRNA for neurexin II, complete cds
11387	18866		2.84		0.0E+00 AB035266.1	NT	Homo sapiens mRNA for neurexin II, complete cds
11371	24318		2.4		0.0E+00 BE182360.1	EST_HUMAN	PM0-HT0645-060500-002-E05 HT0645 Homo sapiens cDNA
11371	24318	37847	2.4		0.0E+00 BE182360.1	EST_HUMAN	PM0-HT0845-060500-002-E05 HT0645 Homo sapiens cDNA
11372	24319		1.48		0.0E+00 AV701152.1	EST_HUMAN	AV701152 ADA Homo sapiens cDNA clone ADAAAD06 5'
11387	24334				0.0E+00 AW 406380.1	EST_HUMAN	UI-HF-BLD-acs-c-09-0-UI.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3060089 5'
11390	24336				0.0E+00 BE896423.1	EST_HUMAN	601439092F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924142 5'
11397	24342	37874			AW500307.1	EST_HUMAN	ULHF-BN0-akg-d-02-0-UI.r1 NIH_MGC_50 Homo saplens cDNA clone IMAGE:3077019 5
11397	24342		2.26		0.0E+00 AW 500307.1	EST_HUMAN	UI-HF-BN0-akg-d-02-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077019 6'
							bb78c04.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048486 5' similar to gb:Y00345_cds1 POLYADENYLATE-BINDING PROTEIN (HUMAN); gb:X65553 M.musculus mRNA for poly(A) binding
11398	24343	37876	7,11	0.0E+00	0.0E+00 BE018293.1	EST_HUMAN	protein (MOUSE);
11417	24361	37896	14.52		0.0E+00 X59314.1	NT	H.sapiens gene for Ig kappa light chain variable region "011"
11421	24365		2.3		0.0E+00 AU121677.1	EST_HUMAN	AU121877 MAMMA1 Homo saplens cDNA clone MAMMA1000731 5'
11430	24374			0.0E+0		EST_HUMAN	601440446F1 NIH_MGC_72 Homo saplens cDNA clone IMAGE:3825403 5'
11431	24375			0.0E+00	0.0E+00 AI459545.1	EST_HUMAN	ao86g11.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1952804.3'
11431	24375	37915	1.58	0.0E+00	AI459545.1	EST_HUMAN	ao86g11.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1952804.3'

Page 540 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Olligie Exul Flobes Expressed III Dolle Marrow	st Similar Top Hit Acession Top Hit Descriptor Top Hit Descriptor Source	0.0E+00 AL042278.1 EST_HUMAN DKFZp434L0120_r1 434 (synonym: https://dx.doi.org/10.0000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.0000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.0000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.0000/10.000/10.000/10.000/10.000/10.000/10.0000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.0000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.000/10.0000/10.000/10.000/10.000/10.000/10.000/10.000/10.0000/10.000/10.00000/10.00000/10.0000/10.0000/10.0000/10.0000/10.00000/10.00000/10.0000/10.000000/10.00000/10.00000/10.00000/10.00000/10.00000/10.00000/10.0000000/10.00000/10.00000/10.00000/10.00000/10.00000/10.00000/10.000000/10.00000/10.000000/10.00000/10.00000/10.00000/10.000000/10.000000/10.000000/10.00000/10.00000/10.00000000	H 60	0.0E+00 F00864:1 EST_MUMAN 1/ETZ	HSB77E122 STRATAGENE Human skeletal muscle cDNA library, cat. #936215. Homo saplens cDNA clone) 0.0E+00 F00884.1 EST_HUMAN   77E12	0.0E+00 475827 NT Homo saplens neuraxin III (NRXN3) mRNA	0.0E+00 BF206561.1   EST_HUMAN   601870902F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4101433 5	00 AW 207734.1 EST_HUMAN	0.0E+00 AW 604975.1   EST_HUMAN   RCD-CT0380-210100-032-c10 CT0380 Homo saplens cDNA	0.0E+00/AW604975.1   EST_HUMAN   RC0-CT0380-210100-032-c10 CT0380 Homo sapiens cDNA	0.0E+00 AB018280.1 NT Homo sapiens mRNA for KIAA0717 protein, partial cds	0.0E+00 AB018260.1 NT Homo saplens mRNA for KIAA0717 protein, partial cds	0.0E+00 BE208846.1 EST HUMAN 55KDA-ASSOCIATED PROTEIN:	00 BE206846.1 EST HUMAN	11024711 NT	L32832.1 NT	EST HUMAN	EST_HUMAN		0.0E+00 AW673469.1 EST HUMAN KIAA0522 PROTEIN;	00 AW673469.1	0.0E+00 BF507876.1   EST_HUMAN   UI-H-BI4-ack-b-10-0-UI.s1 NC  CGAP_Sub8 Homo saplens cDNA clone (MAGE:3085028 3'	EST_HUMAN	EST_HUMAN	Г	EST_HUMAN	EST_HUMAN	00 BE876401.1	0.0E+00   D87682.1   NT - Human mRNA for KIAA0241 gene, partial cds
		0.0E+00 AL	2000	0.0E+00 F0	0.0E+00 F00	0.0E+00	0.0E+00 BF	0.0E+00/AW	0.0E+00 AW	0.0E+00/AW	0.0E+00 AB	0.0E+00 AB	0.0E+00 BE	0.0E+00	0.0E+00	0.0E+00 L32	0.0E+00 BE	0.0E+00 BE	0.0E+00 AA	0.0E+00 AW	0.0E+00 AW	0.0E+00 BF	0.0E+00 BF	0.0E+00 AU	0.0E+00 BF	0.0E+00 BF	0.0E+00 BE	0.0E+00 BE	0.0E+00 D87
	Expression Signal	4.83	7	4.18	4.18	2.85	3.38	12.88	5.09	5.09	2.91	2.91	3.54	3.54	2.13	1.92	3.74	3.74	7.64	1.51	1.51	5.23	5.23	3.54	1.84	1.84	17.24	17.24	2.9
	ORF SEQ ID NO:	37924	27024		37932	37967		Ш				37976	37977				38003	38004	38017	38023	38024	38046							
	Exon SEQ ID NO:	24384	08676		24389							24426	24427	24427	1	1	ı		24464	24472	24472	24490							24507
ſ	Probe SEQ ID NO:	11441	4448	1	11446	11474	11475	11478	11479	11479	11483	11483	11484	11484	11506	11509	11513	11513	11523	11531	11531	11549	11549	11556	11560	11560	11561	11561	11567

Page 541 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

					,		
Probe SEQ ID NO:	Exan SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
11571	24510		5.42	0.0E+00	0.0E+00 BF240536.1	EST_HUMAN	601875630F1 NIH_MGC_55 Homo saplens cDNA clone IMAGE:4099710 5'
11582	24520	38075		0.0E+00	0.0E+00 AB037737.1	TN	Homo saplens mRNA for KIAA1316 protein, partial cds
11582	24520			0.0E+00	0.0E+00 AB037737.1	LN	Homo saplens mRNA for KIAA1316 protein, partial cds
11586	1			0.0E+00	1,1430868 NT	ĮŅ.	Homo sapiens retinoblastoma-like 2 (p130) (RBL2), mRNA
11586	1 '	38080	3.41	0.0E+00	11430868 NT	LN L	Homo sapiens retinoblastoma-like 2 (p130) (RBL2), mRNA
11590	24528	38085	2.06		0.0E+00 BE122764.1	EST_HUMAN	23_08 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo saplens cDNA clone 23_08 5' similar to Homo saplens cyclin B2 (CCNB2)
11591					BE017960.1	EST HUMAN	bb73h05.71 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3048067 5' similar to SW:CD97_HUMAN P48960 LEUCOCYTE ANTIGEN CD97 PRECURSOR. [1];
11595	1		2.69	0.0E+00	0.0E+00 AA772837.1	EST_HUMAN	ae74g04.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:969942.3'
11605				ļ	4503544 NT	TN	Homo sapiens eukaryotic translation initiation factor 5A (EIF5A) mRNA
11612	1		2.25		0.0E+00 BF576267.1	EST_HUMAN	602134132F1 NIH_MGC_81 Homo sepiens cDNA clone IMAGE:4289502 5
11615		38114			0.0E+00 AW328173.1	EST_HUMAN	dr04g05.xt NIH_MGC_3 Homo saplens cDNA clone IMAGE:2847177 5'
11620	24558		83.29	0.0E+00	M55083.1	NT	Human gamma actin-like pseudogene, complete cds
11624	24562	38123	159.29		0.0E+00 AIG60968.1	EST_HUMAN	wf20e11.x1 Soares_Dieckgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351180 3' similar to gb:M87789 IG GAMMA-1 CHAIN C REGION (HUMAN);
11625	24563	38124	2.3	0.0E+00	0.0E+00 BF306986.1	EST_HUMAN	601889823F1 NIH_MGC_17 Homo saplens cDNA clone IMAGE:4123948 5
11625	24563	38125	2.3	0.0E+00		EST_HUMAN	601889823F1 NIH_MGC_17 Homo saplens cDNA clone IMAGE:4123948 5'
11632	24569		59.51	0.0E+00	0.0E+00 BF362462.1	EST_HUMAN	QV2-NN0054-230800-333-604 NN0054 Homo saplens cDNA
11648	24585		2.42		U36264.1	NT	Human beta-prime-adaptin (BAM22) gene, exon 16
11648	24585			0.0E+00	30 U36264.1	L	Human beta-prime-adaptin (BAM22) gene, exon 16
11654	24591			0.0E+00	00 BE897051.1	EST_HUMAN	601439605F1 NIH_MGC_72 Homo septens cDNA clone IMAGE:3924577 5
11665	24601	38177	1.54	0.0E+00	8923698 NT	NT	Homo saplens golgin-like protein (GLP), mRNA
11668	24604		2.24	0.0E+00	BF207662.1	EST HUMAN	601861947F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:4081715 5'
11669	24605		4.82	0.0E+00	0.0E+00 BE257744.1	EST_HUMAN	601116705F1 NIH_MGC_16 Homo sepiens cDNA clone IMAGE:3357384 5'
11682		38225	4.13		0.0E+00 BE206846.1	EST HUMAN	ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:076022 076022 E1B- 15KDA-ASSOCIATED PROTEIN.;
	1						ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:076022 076022 E18-
11682			4.13	į	0.0E+00 BE206846.1	EST_HUMAN	55KDA-ASSOCIATED PROTEIN.;
11684	24650	38228	3.8	0.0E+00		EST_HUMAN	QV0-CT0225-101299-071-f06 CT0225 Homo sapiens cDNA
11689	24655		4.96		0.0E+00 AA558707.1	EST HUMAN	ni42c08.s1 NCI_CGAP_Pr4 Homo sapiens cDNA clone IMAGE:1043342 similar to gb:M95178 ALPHA- ACTININ 1, CYTOSKELETAL ISOFORM (HUMAN);
11690	18451					EST_HUMAN	wp08g08.x1 NCI_CGAP_Kid12 Homo saplens cDNA clone IMAGE:2464094 3'
11691	ı			Ц	0.0E+00 AW327895.1	EST_HUMAN	dr02b08.x1 NIH_MGC_3 Homo sapiens cDNA clone IMAGE:2846919 5'

Page 542 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Probe SEO ID NO:	SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
11711	25706	38254	1.63	0.0E+00	0.0E+00 AW 292776.1	EST_HUMAN	UI-H-BW0-aij-d-07-0-UI:s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2729509 3'
11718	23915	37432	2.09	0.0E+00	4758827 NT	Z	Homo sapiens neurevin III (NRXN3) mRNA.
11724	24610	38186	2.43	0.0E+00	0.0E+00 BE965909.2	EST_HUMAN	601659088R1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3895916 3'
11724	24610	38187	2.43	0.0E+00	0.0E+00 BE965909.2	EST_HUMAN	601659088R1 NIH_MGC_70 Hamo sapiens cDNA clone IMAGE:3895916 3'
11725	24611		3.67	0.0E+00	0.0E+00 BE185656.1	EST_HUMAN	IL5-HT0731-020500-077-f05 HT0731 Homo sapiens cDNA
11739	24624			0.0E+00	0.0E+00 AL046540.1	EST_HUMAN	DKFZp434G178_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G178 5'
11739	24624	38203		0.0E+00	0.0E+00 AL046540.1	EST_HUMAN	DKFZp434G178_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G178 5'
11746	24631	38211	2.29	0.0E+00	BF082504.1	EST_HUMAN	MR4-BT0358-130900-016-a04 BT0358 Homo sapiens cDNA
11750	24635	38214	19.22	0.0E+00	0.0E+00 Al923116.1	EST HUMAN	wn83g03.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2452468 3' similar to gb:S37431 LAMININ   RECEPTOR (HUMAN);
11753	24681	38259		0.0E+00	0.0E+00 AA760913.1	EST_HUMAN	nz11c07.s1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1287468 3' similar to TR:Q13686 Q13686 ALKB HOMOLOG PROTEIN :
11753	24681	38260		0.0E+00	0.0E+00 AA760913.1	EST HUMAN	nz11c07.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1287468 3' similar to TR:Q13686 Q13686 ALKB HOMOLOG PROTEIN. ;
11758	24686	38266	3.51	0.0E+00	0.0E+00 BE910546.1	EST_HUMAN	601501090F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902926 57
11766	23921	37440	5.45	0.0E+00	0.0E+00 BE676347.1	EST HUMAN	7/27/12.x1 NC_CGAP_CLL1 Homo saplens cDNA clone IMAGE:3295919 3' similar to TR:000409 000409   CHECKPOINT SUPPRESSOR 1.;
11769	23924	37443		0.0E+00	0.0E+00 BE615666.1	EST_HUMAN	601279335F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611144 5'
11769	23924		2.02	0.0E+00	BE615666.1	EST_HUMAN	601279335F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611144 5
11777	23932			0.0E+00	0.0E+00 AV757420.1	EST_HUMAN	AV757420 BM Homo sapiens cDNA clone BMFAGH03 5'
11808	24693			l		TN	Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds
11808	24693	38274	5.01		0.0E+00 L39891.1		Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds
11822	24705				AU138211.1	EST_HUMAN	AU138211 PLACE1 Homo sapiens cDNA done PLACE1008077 5'
11835	24718				0.0E+00 BE622317.1	EST_HUMAN	601441096F1 NIH_MGC_72 Homo sapiens cDNA done IMAGE:3916270 5'
11860	24742				0.0E+00 Al939634.1	EST HUMAN	fm94c10.x5 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2165778 3'
11868	24750	38332		0.0E+00	0.0E+00 BE748899.1	EST_HUMAN	601572186T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3839012 3'
11868	24750			0.0E+00	BE748899.1	EST_HUMAN	601572186T1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3839012 3'
11877	24759		2.54	0.0E+00	0.0E+00 AU141882.1	EST_HUMAN	AU141882 THYRO1 Homo sapiens cDNA clone THYRO1001398 5
11877	24759	38344		0.0E+00	AU141882.1	EST_HUMAN	AU141882 THYRO1 Hamo saplens cDNA clone THYRO1001398 5
11880	24762	38347	1.97	0.0E+00	0.0E+00 AW006022.1	EST HUMAN	wz91h01.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2566225 3' similar to WP:F63H10.2 CE11040 ZINC FINGER, C2H2 TYPE ;
	ĺ						7h22b10.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3316699 3' similar to TR:Q13458 Q13458
11882	- 1			0.0E+00	0.0E+00 BF002333.1	EST HOMAN	TRIO.;
11899	24780	38366	1.48	0.0E+00		EST_HUMAN	DKFZp434L1227_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L1227 5

Page 543 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 544 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Page 545 of 546
Table 4
Single Exon Probes Expressed in Bone Marrow

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Acession No.	Top Hit Database Source	Top Hit Descriptor
12314	25834		1.96		0.0E+00 AI903497.1	EST_HUMAN	IL-BT030-271098-001 BT030 Homo sapiens cDNA
12357	25962		1.82		0.0E+00 N54484.1	EST_HUMAN	yv40e08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:245222 3' sImilar to SW:POL_BAEVM P10272 POL POLYPROTEIN ;
12371	L		5.99	ŀ	0.0E+00 AF106656.1	LN	Homo sapiens adenylosuccinate lyase gene, complete cds
12374	L		3.44	0.0E+00	4507500 NT	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
12374		26858			4507500 NT	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
12383	25837		2.58	0.0E+00	10092587 NT	۲	Homo sapiens nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2 (NFATC2), mRNA
12411	13820		2 52		0 0E+00 AE003528 1	F	Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
	L						hg31e08.x1 NCI_CGAP_GC8 Home sepiens oDNA clone IMAGE:2947234 3' similar to contains Alu
12504	25767	31521	3.54	0.0E+00	0.0E+00 AW 590082.1	EST_HUMAN	repetitive element contains element MER22 repetitive element;
12534			1.41		0 1.20493.1	TN	Human gamma-glutamyi transpeptidase mRNA, complete cds
12561	25831		2.82		0.0E+00 AF068757.1	TN	Homo saplens somabstatin receptor subtype 3 (SSTR3) gene, 5' flanking region and partial cds
12597	Ι.,		2.72		9635487 NT	TN	Human endogenous retrovirus, complete genome
12835			1.47		0.0E+00 A1204914.1	EST_HUMAN	an05h04.x1 Stratagene schizo brain S11 Homo saplens cDNA clone IMAGE:1684759 3'
12683					8912457 NT	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12883	15027	28035	1.88		E912457 NT	LN	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12701					0.0E+00 AF038385.1	NT	Homo sapiens caveolin-3 (CAV3) mRNA, complete cds
12712	14723	27705	4.49		0.0E+00 H30132.1	EST_HUMAN	yo59e08.r1 Soares breast 3NbHBst Homo sepiens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYLTRANSPEPTIDASE 5 PRECURSOR (HUMAN);
12712	14723	27708			0.0E+00 H30132.1	EST_HUMAN	yo59e08.r1 Soares breast 3NbHBst Homo saplens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYLTRANSPEPTIDASE 6 PRECURSOR (HUMAN);
12724	25377		52.99		0.0E+00 D50859.1	NT TN	Human gamma-cykoplasmic actin (ACTGP9) pseudogene
12725	25378		3.63		11418189NT	N	Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA
12725					11418189 NT	IN	Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA
12739		28141	2.42		4758489 NT	NT	Homo sapiens GTP binding protein 1 (GTPBP1) mRNA
12780	25415		1.39		0.0E+00 AW664999.1	EST_HUMAN	hi86a06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979154 3'
4.284.8	25440	24721	1 64	00+110	0 0E+00 BE248780 1	EST HIMAN	TCBAP1E4466 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project≂TCBA Homo saplensi cDNA clone TCBAP4466
12827	1		1.55		11526291 NT	LZ	Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA
12849	١.	31287	3.07	L	4885312]NT	NT.	Homo sapiens G protein-coupled receptor 24 (GPR24), mRNA
12858	ı				6806918 NT	Z	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
12863	1 1				0.0E+00 AB029900.1	LZ.	Homo saplens CST gene for cerebroside sulfotransferase, exon 1, 2, 3, 4, 5

Page 546 of 546 Table 4 Single Exon Probes Expressed in Bone Marrow

Į			Π		П				
	Top Hit Descriptor	Homo saplens cleavage and polyadenylation specific factor 1, 160kD subunit (CPSF1), mRNA	Homo saplens chromosome 21 segment HS21C048	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA	Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA	Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA	Human endogenous retrovirus pHE.1 (ERV9)	Homo saplens chromosome 12 open reading frame 3 (C12ORF3), mRNA
	Top Hit Database Source	LN	N F	님	۲N	Ę	F	TN	N
	Top Hit Acession No.	9558724 NT	30 AL163246.2	6806918 NT	6912457 NT	7657020 NT	8567387 NT		9966844 NT
	Most Similar (Top) Hit BLAST E Value	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00 X57147.1	0.0E+00
	Expression Signal	2.53	3.32	2.65	1.32	3.02	1.36	1.63	1.4
	ORF SEQ ID NO:	31733		26609	27473		31685		27156
	Exon SEQ ID NO:	25486	25984	13692	14499	25568	25590	25613	14203
	Probe SEQ ID NO:	12902	12927	12935	12986	13018	13051	13082	13103

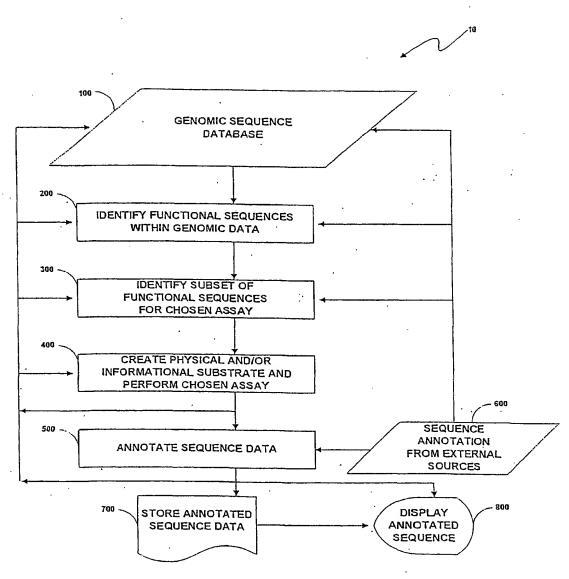


Fig. 1

WO 01/57276

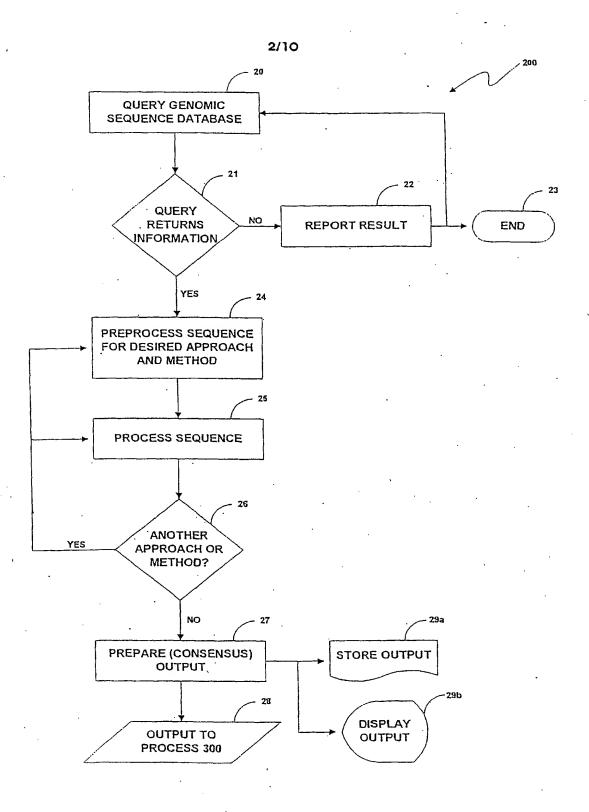


Fig. 2

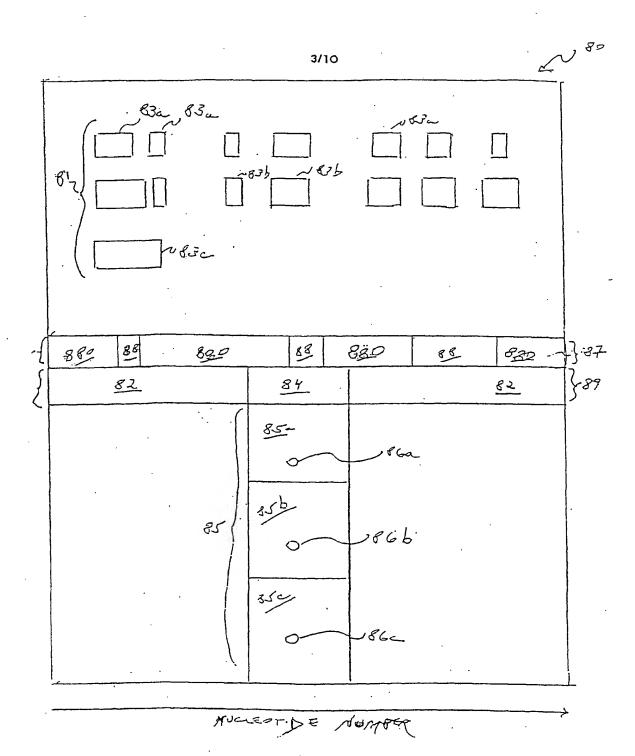


Fig. 3

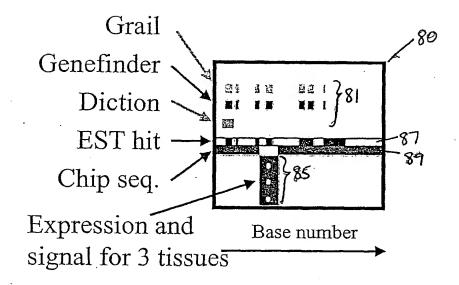


Fig. 4

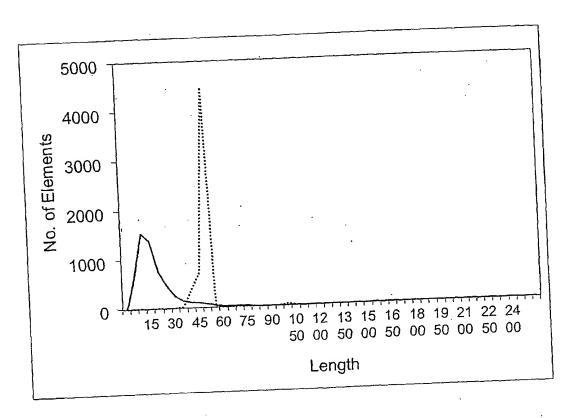


Fig. 5

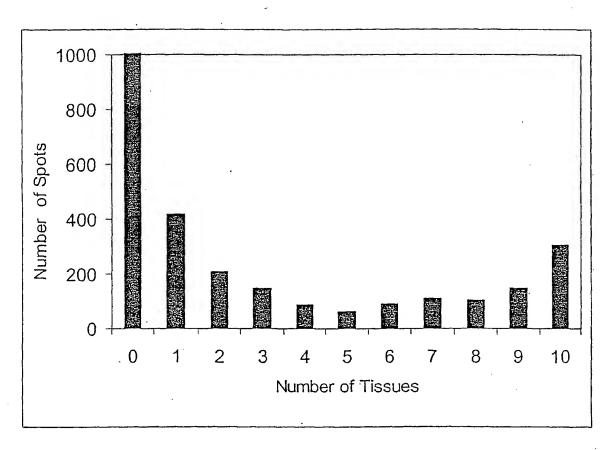
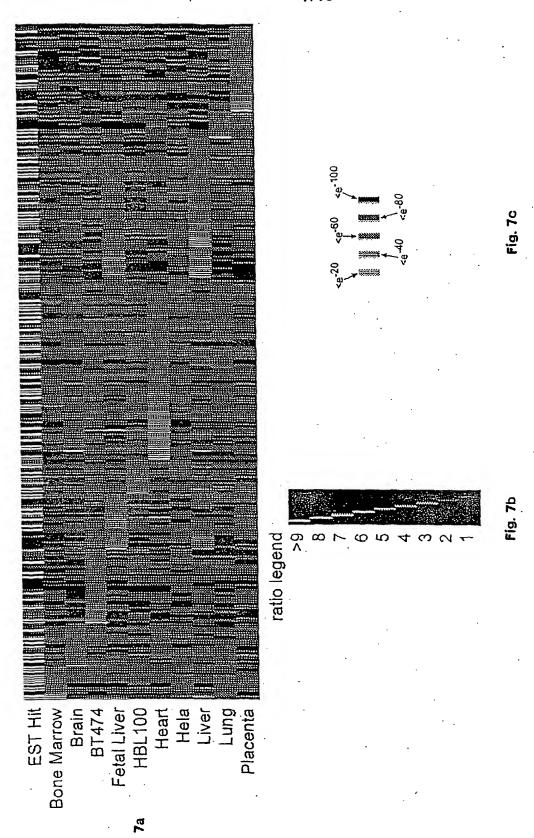


Fig. 6



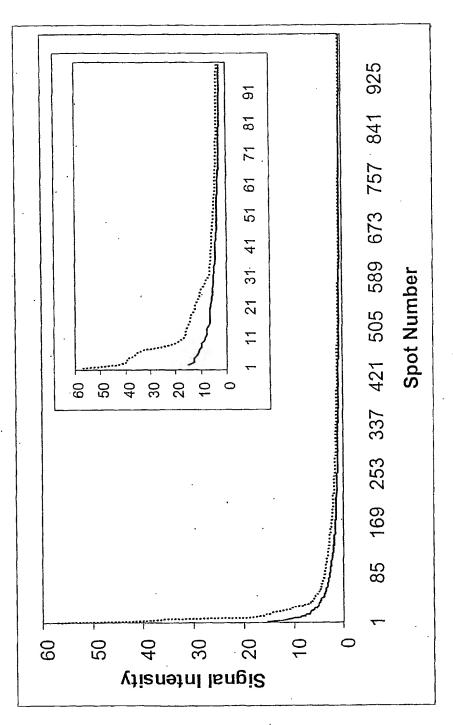


Fig. 8

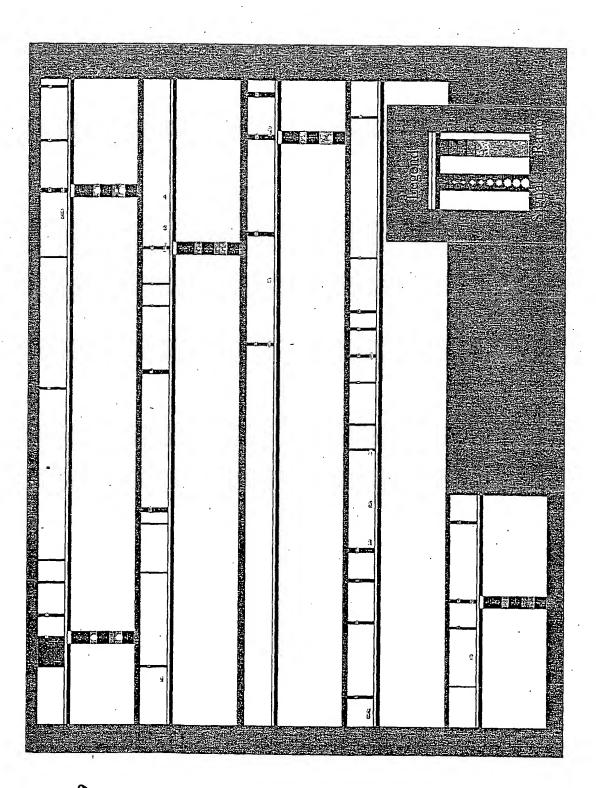


Fig. 9

Fig. 10

